

Vikrum D. Aiyer, Chief of Staff, United States Patent and Trademark Office

Arriving from the White House, Aiyer previously served as President Obama's senior policy advisor for the innovation and manufacturing agenda at the National Economic Council. Managing the policy development process with the White House, the Department of Commerce, the Copyright Office, and the U.S. Trade Representative—the chief of staff executes the secretary and under secretary's mission of optimizing the quality of patent and trademark rights, improving the enforcement of intellectual property worldwide, and placing more tools in the hands of entrepreneurs to unleash new technologies and industries.

Aiyer was previously deputy chief of staff, where he managed public-private partnerships aimed at expanding the national footprint of the patent & trademark office; boosting export capabilities for small businesses; spurring advanced manufacturing opportunities in America; and ripening the business climate for startup growth. As a former communications advisor to Sen. Ed Markey (D-MA) and District of Columbia Mayor Adrian Fenty (D), Aiyer has worked on strategic communications campaigns for Congress, federal agencies, and trade associations, including the State Department, the White House Initiative on Asian Americans & Pacific Islanders and the National Education Association. In 2015 Forbes Magazine named Aiyer to the 30 Under 30 list for Law & Policy. He attended the University of California, Berkeley and did graduate work at the George Washington University's School of Political Management. He lives in the District of Columbia, where he volunteers on the steering committees for Refugees International, Big Brothers Big Sisters, and the Susan G. Komen Foundation.

Ray Almgren, Chairman, FIRST® in Texas

Ray serves as chairman of the For Inspiration and Recognition of Science and Technology (*FIRST*[®]) in Texas board and a member of the National *FIRST*[®] Executive Advisory Board. He is a member of the Austin Chamber of Commerce Board of Directors and engineering advisory boards including The University of Texas at Austin, Southern Methodist University, and Tufts University. Almgren holds a bachelor's degree in electrical engineering from The University of Texas at Austin.

Bob Atkinson, Bioengineering Graduate Student, University of Washington

Bob is currently a graduate student in bioengineering working in the Lutz lab at the University of Washington on capillary-driven medical diagnostic devices. Prior to being a graduate student, Bob was a software architect with Microsoft for over 20 years. During his tenure at Microsoft, Bob was one of the principal architects of Microsoft's Component Object Model (COM) standard, which served as the basis for several other key Microsoft frameworks, including OLE, OLE Automation, ActiveX, COM+, DCOM, the Windows shell, DirectX, UMDF and Windows Runtime. Bob is also a long time *FIRST*[®] mentor and volunteer.

Kenny Bae, Teacher, The Wolcott School

Kenny, a Wolcott teacher, brings experience in education, technology, and managing grant funded STEM projects. Kenny has taught college and high school physics and math. Kenny has worked in many experiential education capacities, including leading STEM programs at Wolcott School for students with complex learning differences. Kenny's goal is to inspire his students to be science and technology leaders and to foster well-rounded life capabilities including self-confidence and communication.



Andy Baker, President and Owner, AndyMark

Andy is a *FIRST*[®] volunteer and mentor.

Steve Barker, Co-Founder, Modern Robotics

Jonathan Berling, Software Engineer, Qualcomm Technologies, Inc.

Jonathan is a *FIRST*[®] Volunteer and has worked for Qualcomm for over 5 years. During that time he has worked on the Android OS, Artificial Intelligence using Neural Networks, Drones, and Robotics. In his spare time Jonathan enjoys following the news, writing software, and open world space themed MMO video games.

Danny Blau, Design Engineer, AndyMark

Danny is a *FIRST*[®] alumnus, volunteer and mentor.

Nicki Bonczyk, Machine Designer, JR Automation

Nicki designs machines that use robots to assemble everyday products. With a B.S. in Product Design and Manufacturing Engineering from Grand Valley State University, Nicki has what she describes as "the coolest job ever". Her employer continues to push the limits with what can be done with a robot. Through the use of industrial robots, such as FANUC, they are able to design/build automated cells that can assemble just about anything. A *FIRST*[®] Alum, Nicki's love for robotics grew out of participation on FRC Team 107 and it was through volunteering at a *FIRST*[®] event while at GVU that she met her future employer. Nicki remains heavily involved with *FIRST*[®] as both a Head Ref and Mentor for local teams. A strong proponent for women in STEM education and careers, Nicki is a frequent guest speaker at school events. She is the only female Head Referee in Michigan.

Don Bossi, President, FIRST®

As President of *FIRST*[®], successful technology executive Donald E. Bossi brings deep technical and management skills to the organization. Bossi, who has excelled in a 20-year career with several high technology companies, primarily in the fiber optics field, is now anxious to give back and help develop the next generation of innovators. He is the holder of four U.S. patents and author of numerous technical presentations. He holds B.S., M.S., and Ph.D. degrees in electrical engineering from the Massachusetts Institute of Technology (MIT), and has completed executive education courses at the Stanford University Graduate School of Business. He served on the Boards of Directors of several privately held companies, and is also a member of the Connecticut Academy of Science and Engineering.

Tom Bottiglieri, Software Engineer, Cisco Meraki

Tom has been a mentor FRC Team 254, The Cheesy Poofs, since 2010, and prior to that was an alumnus of FRC Team 195 and a mentor for FRC Team 125. He is a software engineer at Cisco Meraki working on cloud managed networking.



Jeanne Boyarsky, Java Developer, Author, and Technical Mentor to Team 694

Jeanne has been a Java developer for over 13 years at a bank in NYC. As the programming mentor to FRC team 694, she was the Woodie Flowers Award finalist in NYC in 2012. She also won the NYC Volunteer of the Year Award in 2015 for her role as co-volunteer coordinator. Jeanne has co-authored two books about Java certification; check out the dedication for a *FIRST*[®] shout out. Despite all these time consuming hobbies, she manages to find the time to play table tennis. Jeanne's professional experience speaking/writing is listed at http://www.coderanch.com/how-to/java/BioJeanneBoyarsky

Michelle Brown, Project Manager and Subject Matter Expert, National Alliance for Partnerships in Equity (NAPE)

Michelle is helping to create online courses to improve equity, access and diversity in education and ultimately the STEM workforce. Michelle Brown worked as a science teacher for 8 years and has been a STEM instructional coach for 2 years. Through her work she has written standards-aligned science curriculum for her middle and high school science classes, as well as for all middle school science teachers in the Austin Independent School District. Since 2013, Michelle has been developing online courses in STEM, including general science courses, a polar science course and equity courses. In 2011 and 2015, Michelle joined research teams in Antarctica as a PolarTREC teacher, where she engaged in cutting edge science. Together with NAPE, Michelle strives to enable every student to fulfill their potential through equal access to and equity in educational options that lead to the entire spectrum of career choices.

Cathy Burack, Associate Director, Senior Fellow for Higher Education, Center for Youth and Communities, Heller School for Social Policy and Management, Brandeis University

Cathy works with colleges, universities, and community organizations to use evaluation to both "prove" and "improve" their programs. To that end Cathy conducts evaluations of campus-based change initiatives, indicators associated with student success, and multi-site evaluations on campus-wide change initiatives. Currently Cathy is the co-Principal Investigator of the longitudinal evaluation of *FIRST*[®].

Jim Burger, FIRST[®] Government Relations Council, Partner, Thompson Coburn LLP

Jim works as part of the Lobby and Intellectual Property practices at Thompson Coburn. He spent ten years in Apple's Law Department and ran their Washington Government Affairs Office. As *FIRST®*'s Government Relations Counsel, working with Regional Directors and others, he was instrumental in lobbying passage of the Every Student Succeeds Act, Title IV Part A, which allows local school districts to use federal funds for *FIRST®* teams. Jim was recently recognized in Best Lawyers as best copyright lawyer in Washington, D.C., named to 2016 Washington DC Super Lawyers list, and included in The Best Lawyers in America in the practice areas of: Copyright Law and Technology Law for Seven Years in a Row. Jim earned his undergraduate, masters and law degrees from New York University He is an adjunct Professor of Law at the Georgetown Law Center, Chair of the Federal Communications Bar Association Intellectual Property Committee, and Chair of the Content Protection Technical Working Group

Steve Canty, Boosters Club C-Founder and Vice President, FRC Team 4176



Veronica Cavallaro, Chief Operating Officer, Iridescent

Veronica is Chief Operating Officer at Iridescent, parent organization of CuriosityMachine.org and Technovationchallenge.org

Crystal Cobb, Assistant Director of Admissions, Embry-Riddle Aeronautical University

Crystal is an admissions professional who has worked in higher education for more than 8 years. She began her career at her alma mater, Radford University, and joined Embry-Riddle Aeronautical University in 2011. As an Admissions Counselor at Embry-Riddle, the world's largest aviation and aerospace focused university, she has helped hundreds of students to prepare for successful careers in the industry. In addition, she oversees the *FIRST*[®] scholarship application process and advises the University's Women's Ambassador Program, an initiative that offers mentoring and support to female students interested in STEM programs.

Sherry Comer, Director of Afterschool Services, Camdenton R-III Schools

Sherry is a National Afterschool Alliance Ambassador-Emeritus and Camdenton R-III *FIRST*[®] Robotics Coordinator for all four *FIRST*[®] programs. She is also the Mid-Missouri FLL Jr. Expo, FLL & FTC qualifier event coordinator. Sherry is a member of the Missouri FTC & FLL planning committee and the assistant coach for FRC Team LASER 3284.

Yvonne Cooper, Senior Director of Marketing & Communications, XPRIZE®

Yvonne has more than 20 years of experience in marketing and brand planning for companies including The Coca-Cola Company, Sony Pictures and The Walt Disney Company. Prior to joining XPRIZE[®], she led the marketing strategies and operational brand planning for the Coca-Cola brand portfolio and over 20 non-carbonated and cross–franchise brands in the West including smartwater[®], vitaminwater[®], and PowerAde[®] and was instrumental in the re-launch of the Coke Zero[®] brand. Prior to Coca-Cola, Mrs. Cooper managed the merchandising and branding efforts for film and television properties at Sony Pictures. Mrs. Cooper received a Bachelor of Science in Business from Stockholm University and an MBA in Marketing and Finance from Pepperdine University. A Swedish native, Mrs. Cooper also has international experience, having worked in both Sweden, Germany and the United Kingdom.

Ella DeCastro, Maker Lab Designer and Innovator, FTC Team 8728

Ella is a 9th grade student at The Wolcott School. She enjoys theatre, acting, 3D design and printing.

Alissa delSol, Transmission Wholesale Services Manager, Florida Power and Light Company

Alissa is responsible for managing the company's wholesale transmission business for its' wholesale customers. This includes requests for wholesale delivery points, transmission service and generator interconnections. Alissa joined FPL in 2004 and has served in a variety of engineering and operations positions within the distribution and transmission business units, including Emergency Preparedness Program Manager, Business Process Analyst, and Customer Project Manager. In her role as Emergency Preparedness Program Manager, she coordinated all emergency response plans for transmission and generation capacity shortfall, hurricane response plans and led cross-functional efforts in emergency preparedness across the company. Alissa holds a B.S. in Industrial Engineering, an M.B.A. from the University of Florida and is a certified Six Sigma Quality Green Belt.



Ted Dintersmith, Executive Producer and Change Agent

After a twenty-five year career in venture capital, Ted Dintersmith is now focused on issues at the intersection of innovation and education. He is actively involved with a number of initiatives that seek to deliver vastly-improved learning experiences to people around the globe. He is particularly interested in the role of film (in conjunction with other social media) in effecting social change.

In 2012, Ted served as part of the delegation representing the United States at the United Nations General Assembly, where he focused on global education and entrepreneurship. Ted is a Partner Emeritus with Charles River Ventures, a leading early-stage venture capital firm. He has been an early, active investor in numerous successful start-ups. Ted has served on the Board of the National Venture Capital Association, chairing its Public Policy Committee. Ted earned a Ph.D. in Engineering from Stanford University, and his undergraduate degree from the College of William and Mary, where he earned High Honors in Physics and English.

Monique Dituri, Teacher, Clifton High School

Monique has been a teacher and robotics coach for 10 years. She is currently the lead mentor for FRC 3314, The Mechanical Mustangs and a chemistry teacher at Clifton High School. She has a Master's Degree in Education and was a WIPRO Science Fellow from 2012-2015. She is currently the Secretary and Student Liaison for the Montclair Society of Engineers. She has had over 70 projects completed on Donorschoose.org ranging from sets of tools and uniforms to *FIRST*[®] registration fees.

Amy Doherty, Program Specialist, Minnesota State High School League

Amy administers robotics, soccer, and gymnastics; coordinates communication and writing projects; and creates online training for coaches and officials.

Eric Druker, Director of NextGen Analytics Solutions, Booz Allen Hamilton

In 2010, Eric invented a new technology - RealTime Analytics - enabling complex simulations, previously requiring hours to run, to simulate in a matter of seconds. These technologies have been leveraged into Polaris and Argo, the first commercial-off-the-shelf software products ever developed and sold by Booz Allen Hamilton. Eric has a degree in applied mathematics and economics from the College of William and Mary and, in his spare time, practices deep-space astrophotography.

Thomas Eng, FIRST® Tech Challenge Engineer, FIRST®

Tom has been the engineer for the *FIRST*[®] Tech Challenge for the past 4 years. Prior to working at *FIRST*[®], Tom worked for many years in the technology/software industry. Tom has degrees in Mechanical Engineering from the University of Pennsylvania and Princeton University.

Adam Epstein, Associate Director of Admissions, Worcester Polytechnic Institute

Adam is a graduate of WPI and has worked in the WPI Admissions Office since 2007. While his job focuses on working with students before arrival at WPI, his favorite time on campus is at graduation when everyone celebrates the completion of their hard work. When not working you are likely to find him listening to Bruce Springsteen (usually while working too), watching Seinfeld or sports, running or at the gym, or traveling. Like xkcd? Him too: #214.



Tyler Evans, Engineer, NASA

Tyler is a **FIRST**[®] alumnus of teams 949 and 1294 in Washington State. He is currently a college mentor at Purdue University of teams 461 and 1646. Through **FIRST**[®] Robotics, Tyler got his dream job of building satellites at NASA. As a result, he continues to mentor FRC teams to inspire others to follow their dreams. In 2016, Tyler spent 3 months traveling around Australia helping 17 different teams by inspiring students to take ownership of their learning through hands-on engagement to achieve a sustainable future of learning.

Erik Finman, President of Finman, LLC

Erik is an entrepreneur that has been building robots since he was 5 years old and was involved in one that went to space. He got into Bitcoin investing when he was 12 with a \$1000 check from his Grandma that he was supposed to put towards his college fund. He dropped out of high school at 15 to start his online educational business. And made \$100,000 at 15 on his Bitcoin investment. He's now 17. He's open sourcing the education software he made to teachers, students, and developers to encourage innovation in the education space. He recently launched a \$250 VR computer that can replace your laptop. And has just gotten approval from NASA to launch a satellite next year.

FLL Team 100, Team Storm

Team Storm is a veteran *FIRST*[®] LEGO[®] League team from Terre Haute, Indiana and the winners of the WORLD CLASSSM Global Innovation Award presented by XPRIZE[®]. Their winning invention was the ROY G. BIVTM Math System which is an App designed to improve the way children challenged with dyslexia learn new math concepts. The App uses a color-coded system keeps digits in place when children do any kind of math operation. Since winning the Global Innovation Award, Team Storm has been meeting regularly with students from local Rose-Hulman Institute of Technology who are developing the App as part of their Computer Science & Software Engineering Senior. Not only did these dynamic innovators wow us in WORLD CLASS, their Eco-Snappy TipsTM invention was the TRASH TREKSM regional Global Innovation Award nominee again this year! Team Members: Caleb Boutell, Elise Boutell, Devon Langley, Lori Langley (coach), Tom Langley (coach), Trevor Langley, Kira Lenderman, Aidan Truby

Steve Florence, Technical Services Manager, Purdue University School of Mechanical Engineering

Steve is a retired Engineering/Technology teacher after 39 years and currently employed by the Purdue University School of Mechanical Engineering as Technical Service Manager for the student machine shop and 3D print lab. He has been involved with *FIRST*® for 17 years as the Lead Teacher Mentor for team 461 Westside Boiler Invasion, *FIRST*® Senior Mentor and *FIRST*® Regional Director and charter member Boilermaker Regional Planning Committee. Steve is the staff adviser and co-founder of Purdue *FIRST*® Programs at Purdue University.



Delaney Foster, Founder and CEO, FRC Team 4911, CyberKnights

Delaney is a senior and has been a member of the CyberKnights for 3 years. The idea for Unified Robotics came to her in the spring of 2015, and she developed and implemented a sustainable model in the fall of 2015. The program has received significant national attention and has become an official Special Olympics® Unified Sports® program. She is dedicated to expanding the program to all high schools, as well as developing Unified Robotics as a transition and training program for companies in the STEM industry who promote neurodiversity hiring practices.

Noelle Foster, Digital Media and Public Relations, Reign Sports Management

Noelle is the mother of Delaney and Kendall and she is a mentor for FRC Team 4911, CyberKnights. Noelle is an advocate for inclusive education practices and equal opportunities for individuals with special needs. She works for Reign Sports Management in digital media and public relations.

Jane Franko, Admissions Counselor, Lawrence Technological University

FRC Team 1311, Kell Robotics

Kell Robotics' mission is to extend *FIRST*® opportunities and STEM education to every student in order to inspire the next generation of Scientists, Technologists, Engineers, Mathematicians, and Leaders. The Kell team has been working since 2008 to accomplish this mission by forming strategic partnerships with political, educational, university, and business leaders, advocating and formulating public policy, building infrastructure, and creating public value through outreach and communications to change the STEM education process.

FRC Team 1325, Inverse Paradox

Inverse Paradox was founded in 2004 out of Gordon Graydon Memorial Secondary School in Mississauga, Ontario, Canada. They first started as a small robotics club, but in 2011 experienced large amounts of growth. The members and mentors worked together to ensure that this growth was channeled to produce not just a strong robotics team, but a strong *FIRST*[®] team. The team is now a prominent figure in their community, hosting many events, workshops, and mentoring other *FIRST*[®] teams. They love sharing their knowledge and helping others to spread STEM within their community as well.

FRC Team 1671

Team 1671 was founded in the fall of 2004 and is located at Buchanan High School in Clovis, California. Over twelve seasons we've gradually improved into a team that has won two Engineering Inspiration Awards, two Chairman's Awards, and was the third alliance partner on the 2015 Championship Alliance. And yet... we've never won a regional. Paul Lake, Teacher Advisor and team founder, 2015 Woodie Flowers Finalist Callie Carbajal, alumna, 2015 team CEO, and 2014 Dean's List Winner Angie Person, Parent and Booster Club Member Joe Baker, Parent and Booster Club Member



FRC Team 1710, Ravonics Revolution

This is Team 1710's eleventh year competing in the *FIRST*® Robotics Competition. Located in Olathe, Kansas, and based out of Olathe Northwest High School, Team 1710, The Ravonics Revolution, has grown every year since its creation. Olathe Northwest's Aerospace & Engineering and E-Communication programs have helped develop a strong foundation for Team 1710's success. With their major programs, such as You Go Girl and Goof Proof, they have reached out to countless members of their community and beyond. Our core values of Commitment, Hands-On Experience, Inspiration, Gracious Professionalism, Student-Led, Student-Run, and Safety help us achieve our mission of preparing our team members for the future.

FRC Team 1902, Exploding Bacon

4-H Exploding Bacon, Team 1902 from Orlando, FL are the recipients of 4 Regional Imagery Awards, 4 Regional Chairman's Awards, 2 Regional Engineering Inspiration Awards and the 2013 World Championship Kamen Family Imagery Award. Our bright green and orange robots, intriguing name, and iconic pig on the rocket logo have gained recognition within the *FIRST*[®] community as well as our local community.

Team members: Elise Cronin-Hurley (coach), Jordan Godwin, Sarah Holman, Ruhi Lankalapalli, Dominic Canora and Sebastian Hedge

Diane Fromm, Programs Manager, PMI Educational Foundation

Diane Fromm oversees the global development of K-12 project management education programs, including the development of resources and strategic partnerships. Her prior roles include management of PMIEF's scholarships, awards and grants programs. Her previous experience includes management positions in sales, marketing and education in the IT Industry including UNISYS, IBM and Shared Medical Services.

FTC Team 10107, A League of Their Own

Team 10107 is diverse in many ways and functions with open conversation and inclusion. Their mission statement is "Expanding the culture of robotics by building a team inspired by creating equal opportunities in real work environments."

Keith Gargiulo, VP Global Services, PTC

Keith's father and grandfathers inspired him to never meet something that he didn't want to take apart, sometimes catastrophically. However for more than 20 years at PTC he's helped companies across industry verticals and continents (except Antarctica – see bucket list) to do a better job putting new things together. For fun there were diversions in construction, a stock car pit crew, a horse farm and veterinary practice, machine design at Alcatel, and engineering at Vermont Yankee Nuclear Power (same plant design as Fukushima). He has been a mentor to FRC Team 4143 MARS/WARS, Coach for FLL Team 8432, FRC robot inspector, judge, and scorekeeper. Keith is married (biomedical engineer, vet, and MBA) with two children (one FLL daughter, one almost old enough son). Along the way he picked up two degrees in Mechanical Engineering, a (lapsed) PE license, and Project Management credentials. Strangely, Keith has always been better at writing than he is at math. Not strangely, he doesn't enjoy writing about himself much and definitely not in the third person.



Ben Ginsberg, Computer Scientist, FTC Team 8728

Ben is a 9th grade student at The Wolcott School. He enjoys working with technology and computers.

Monica Gragg, Mentor Community Manager, Iridescent

Monica recruits and helps engineers and scientists mentor students in an online community. Monica specializes in e-learning strategies, educational technology and adult learning.

Ashley Gravlee, Manager, Corporate Responsibility, Novelis Inc.

Novelis Inc. is the global leader in aluminum rolled products and the world's largest recycler of aluminum. Ashley is responsible for the formulation and implementation of the company's worldwide charitable investment strategy and community volunteering. Her role is reporting to the company's chief sustainability office and directly contributes to the company's strong commitment of being a global leader in sustainability. Ashley has also been one of the driving forces behind Novelis' sponsorship of *FIRST*[®] Robotics internationally and has been an avid supporter of the team.

Daniel Green, President, Purdue FIRST® programs

Daniel is a senior at Purdue University. He is currently pursuing a degree in Computer Science. He became involved with *FIRST*® in High School as a general member on an FRC team for 3 years. In college, Daniel joined Purdue *FIRST*® Programs, where he led a number of efforts in Industrial Relations. He has been involved with the organization as the Treasurer, and is now the current President of the program.

Mark Greenlaw, Vice President of Strategy and Impact, FIRST®

Mark is responsible for defining strategies that will enable *FIRST*[®] to increase program access, participation and impact. Greenlaw, who is a leader in creating innovative hands-on project-based STEM learning opportunities, is dedicated to the idea that inspiring young people in STEM can develop the innovators of tomorrow, equipped to solve the world's most pressing challenges, while simultaneously helping to close the nation's achievement and opportunity gap.

Over the course of his 30 year career in the technology industry, Greenlaw has held leadership roles in information technology, sustainability, and STEM education. Prior to joining *FIRST®* in 2014, he was a Vice President and Chief Information Officer at Cognizant, a Fortune 500 information technology services provider, where he led the implementation of systems and processes that enabled the firm's tenfold growth. Greenlaw launched Cognizant's STEM education, sustainability, and U.S. campus recruiting initiatives, and championed the idea that access to education is the fundamental sustainability issue of our time. Additionally, he created the company's Making the Future program, themed on the Maker Movement, which seeks to inspire young learners in the Science, Technology, Engineering, and Math (STEM) disciplines through fun, hands-on learning opportunities.

Greenlaw represents *FIRST*[®] on STEM Connector's STEM Innovation Task Force, is a member of Citizen's Schools National STEM Advisory Council, and is a founding board member of the Maker Education Initiative (MakerEd), a non-profit whose mission is to create more opportunities for young people to foster creativity and spark interest in science, technology, engineering, math, and the arts. He received a Bachelor of Science degree in Operations Management from Pennsylvania State University and is a voracious life-long learner, constantly exploring topics in education, society, psychology, behavioral economics, business, and technology. Greenlaw is an avid cyclist, maker, cook, podcast junkie, and deeply committed to environmental sustainability.



Chrissy Grotzke, Regional Admissions Manager, Michigan Technological University

David Harrison, International Regional Manager, Macquarie University

Born in the UK, David is Regional Director for Macquarie University in Australia, responsible for the University's international collaborations and partnerships in North America and the Asia Pacific region. He holds a Bachelor of Communications from the University of Technology, Sydney and is completing his Master of Management. David has significant management experience including senior consultancy and stakeholder management roles within private, government and not-for-profit sectors. He has been the spokesperson and marketing manager for high profile projects and organizations including the Australian Government's National Broadband Network and the Australian Red Cross. He is a Spanish speaker who has been working at Macquarie University since 2011.

Alexandra Landegger Heckler, Lead Associate, Booz Allen Hamilton

Alexandra is a Lead Associate in Booz Allen Hamilton's Commercial High-Tech Manufacturing and Retail Services practice. She leads cyber security, analytics, and strategy teams to advise commercial and government clients. Alexandra also drives thought leadership, crafting the team's messaging to deliver unique market perspectives. Her most recent engagements include working with a major automotive OEM to design and build its vehicle cyber security organization. Alexandra led a team of experts from across Booz Allen to envision, create and operationalize their vehicle cyber security incident response capability, a first in the industry. This entailed defining the business value, building resources, and facilitating exercises-all while coordinating inputs and forging active relationships with more than 15 critical internal and external partner organizations. Outputs of this effort, including incident severity criteria, are being used to shape industry-wide practices. Previously, Alexandra has delivered strategy development and stakeholder engagement for technology, innovation and risk analysis initiatives across several government agencies, high-tech manufacturers, academia, and non-profits. Alexandra holds a BS in Foreign Service with an Honors Certificate in International Business Diplomacy, and a MA in Communication, Culture and Technology from Georgetown University. Since her own graduation, Alexandra serves as a mentor to undergraduate students through the Friends of the School of the Foreign Service Program. She has also served as a *FIRST*[®] Volunteer on behalf of Booz Allen. Connect with Alexandra on Twitter @ lexland

Shelley Henderson, Diversity and Inclusion Manager, FIRST®

Shelley leads a new, national initiative to design and implement strategies that will not only improve the diversity of program participation but will also embed inclusion within *FIRST*® and the *FIRST*® community. Shelley has spent over 20 years working as a youth development specialist, certified teacher, nonprofit executive, university program coordinator/adjunct professor, community organizer, public policy advocate and volunteer for a number of organizations and initiatives. She is leading a regional implementation of My Brother's Keeper in the Heartland serving as Lead Facilitator and point of contact for the White House. Equipping adults to address inequity and advance social justice has always been a priority throughout her professional journey. Shelley earned her Bachelor's Degree in Secondary Education and her Master's Degree in Educational Administration and Supervision of Secondary Schools from the University of Nebraska at Omaha. She is finishing her Doctoral Degree in Educational Leadership at the University of Nebraska at Lincoln and starting a Certificate of Diversity & Equity in Education with an emphasis in Human Resource Development at the University of Illinois Urbana-Champaign.



Sophie Hoge, Production Supervisor, John Deere Seeding Group

Sophie oversees two production lines; the 1890 Opener line; and the 1890 No Till production line. Sophie found her passion for engineering and problem solving early during her time with her high school FRC Team 876 (Thunder Robotics), a John Deere sponsored team. It was during the team's participation, and ultimate win, at the Indiana Boilermaker Regional that Sophie was inspired to attend Purdue University. She earned a B.S. in Mechanical Engineering and is currently pursuing her Masters of Interdisciplinary Engineering there as well. During her early career, Sophie worked as a Manufacturing Engineer in Valley City for the "Made in Russia" line and also worked in Material Flow Planning. Her passion for engineering is alive and well and is currently being shared with the students of FRC Team 876, Sophie's original high school team, where she is now a Mentor.

Steve Hyer, President and Founder, IGD Solutions Corporation

Steve is a graduate of the University of Michigan and owns a website application development company, IGD Solutions Corporation. He is the President of the Board of Education for Clarkston Community Schools and member of the Board of Directors of the Michigan Association of School Boards. He has been a mentor on Hall of Fame FRC Team 27, Team RUSH since 2007. Steve has judged FLL and FRC tournaments. He has also developed and runs the *FIRST*[®] National Advocacy Conference in Washington, DC and he has led advocacy efforts in over 30 advocacy trips for school board members, parents, administrators, and students over the last 15 years.

Peter Johnson, FRC Control Systems Team, Worcester Polytechnic Institute

Peter has been a mentor of FRC Team 294 since 2008 and has been involved with FRC control systems development as an alpha and beta tester since 2009. He created RobotPy in 2010 and joined the FRC Control Systems Team in 2015. He was responsible for the reimplementation of Network Tables for C++ and Java for the 2016 season, and also rewrote most of the Java JNI layer for 2016.

Sig Johnson, Electrical and Hardware, FTC Team 8923, Perpetual Velocity

Sig is a junior at Bothell High School and this is his third year on Team 8923, one of three teams in the Swerve Robotics Club. Even though his team did not advance to World Championship, he will be lending a hand to Team 3491 Fix-It.

Misa Kabashima, Assistant Director of Admissions, Harvey Mudd College

Misa is in her third year in admissions at Harvey Mudd College. A Southern California native, she grew up in the Los Angeles and Orange County area and graduated from neighboring Pitzer College. After graduating she spent two years living in South Korea through the Fulbright Program, traveled around Southeast Asia for several months, and worked at another Southern California liberal arts college before joining the team at Mudd. At Harvey Mudd Misa oversees the application and selection process for several merit scholarships, coordinates the senior interviewer program, and organizes programming, scholarship, and recruiting related to international students. In the United States, Misa is the territory manager for Georgia, Florida, North Carolina, South Carolina, Oregon, and various counties in Southern California.



Karthik Kanagasabapathy, Global Competition Manager, Innovation First International

Karthik has presented seminars across North America on *FIRST*[®], robotics education, and decision making. Since 2006, he has been designing competition robotics games that have been played by over 30,000 teams of elementary, middle, and high school students across the globe. He has served as the lead mentor for FRC Team 1114 since 2004, who in 2012 won the Championship Chairman's Award, resulting in their induction into the *FIRST*[®] Hall of Fame, along with numerous on field accolades.

Kathie Kentfield, Director, NEMO (Non-Engineering Mentor Organization)

Kathie has been volunteering for *FIRST*[®] for 15 years. She started as a team mentor for FRC 173, served as the local FTC affiliate partner, co-founded NEMO (Non-Engineering Mentor Organization), and was the *FIRST*[®] Senior Mentor in Connecticut for many years. She enjoys helping teams with teambuilding, bringing extroverts and introverts together, and other non-technical areas of interest.

Jennifer J. (JJ) Klenke, Business Analyst, North America Commercial IT, Monsanto

JJ has held several IT roles within various Monsanto organizations over the past 3 years. Prior to joining Monsanto, she spent 5 years with East Central College in Union, MO, where she taught postsecondary education courses in Business Technology and promoted the value of STEM careers for women. She also coordinated Workforce Investment Grants to assist underprivileged youth with attainment of higher education degrees. JJ earned her B.S. in Business Education, Computer Science & Mathematics and an M.B.A., both from Missouri Baptist University. She also holds an M.A. in IT Management with an emphasis in Decision Support Systems (Data Mining) from Webster University.

Ross (KWOL) Kowalski, Teacher, Norwell High School

Ross is the robotics coach for FRC team 348 in Norwell, Massachusetts. He teaches robotics and engineering courses at the high school.

Tim Lankford, Robotics Application Specialist, Pitsco Education

John Larock, Coordinator, President, Larock Talent Solutions, Board Member, *FIRST*[®] State Robotics Team Coordinator, *FIRST*[®] Team 365 - Miracle Workerz

John is the founder and team coordinator of MOE 365 and is a Woodie Flowers Award recipient. John is President of Larock Consulting Solutions, where he helps clients to identify hard-to-find talent, to develop university recruiting programs, and to solve talent related human resources challenges.

Mark Lawrence, Chairman, Minnesota *FIRST®* Regional Planning Committee

Mark is also the 2015 Championship Woodie Flowers Award winner and he has been an operations mentor on FRC Team 1816 for eleven years.

David Levy, Technology Director, American Association for the Advancement of Science

David has worked closely with *FIRST*[®] since 2006 doing STEM related activities. He has performed various roles including Virginia FLL Education and Outreach Director, coaching teams for competition, mentoring students, officiating tournaments and running summer camps.



Olga Liamkina, Education Liaison, Goethe-Institut New York

Olga is a Foreign Language education specialist with over 10 years of experience in college-level teaching, curriculum building, course design, and classroom-based assessment.

Michelle Long, Alumni Programs Manager, FIRST®

Michelle has been with *FIRST*[®] in a variety of roles since 2011, and has managed the *FIRST*[®] Scholarship Program and other Alumni initiatives since 2013. She is passionate about helping *FIRST*[®] Alumni find success in their lives as they grow, mature, and save the world. Michelle was drawn to working at *FIRST*[®] because of her love of education and passion for getting young adults involved in technology. Michelle graduated from Hillsdale College in 2007 with a Bachelor's degree in technical theater with a specialization in lighting design and programming. After graduating college, Michelle ventured into the non-profit world at North Shore Music Theater, where she was the in-house lighting programmer and operator. After leaving North Shore, she worked in higher education admissions before discovering that *FIRST*[®] could combine both of her passions!

Liz Looney, Senior Software Engineer, Google

Liz Looney is a senior software engineer at Google, where she helped develop App Inventor. Her current assignment is on Google My Maps. She has over 30 years of experience as a software engineer and holds a bachelor's degree in Computer Science from The University of New Hampshire.

Eva Lu, FRC Team 4911, CyberKnights

Eva is junior and has been a member of FRC Team 4911 CyberKnights for 2 years. During Unified Robotics, she worked one-on-one with Kendall Foster, a senior diagnosed with autism and significant learning and behavior challenges. Eva has learned about inclusion and acceptance from working with Kendall, and the two have become great friends through this experience.

Jamee Luce, FIRST® Robotics Competition Team Advocate, FIRST®

Jamee joined *FIRST*[®] in June as the *FIRST*[®] Robotics Competition Team Advocate. Since 2013, Jamee has worked as the Director of the Robotics Institute of Maine. Graduating from the University of Nevada, Las Vegas, with a Bachelor's in math, she taught math and computer science for more than 10 years. It was through that experience that she got involved in *FIRST*[®], as a Mentor for FRC Team 2648.

Craig MacFarlane, Technical Leader, Cisco Systems

Craig holds a degree in Computer Science from the University of California, Irvine, spent his early career doing research work on large scale software engineering systems and then moved to the Bay Area where he did the serial startup thing during the first dot com boom of the late 90s. He currently lives in Los Angeles and does embedded software work for Cisco's ASR1000 line of enterprise and service provider edge routers. All of his free time has been consumed by *FIRST*[®] via mentoring teams 25/5218 and contributing to development of the FTC SDK. And he's perfectly fine with that.

Alisha MacIntyre, International Competitions Manger, LEGO[®] Education

Alisha MacIntyre is an International Competitions Manager at **LEGO**[®] Education and supports *FIRST*[®] **LEGO**[®] League partners across the globe. Alisha has also been involved with developing the *FIRST*[®] **LEGO**[®] League Jr. program to create the best possible experience for participating kids and coaches.



Chad Makings, Education Team, SolidProfessor

For the past ten years, Chad and the Education Team at SolidProfessor have been at the forefront of the technology revolution that is transforming how students learn. Using the most advanced technologies and instructional design techniques we deliver world-class education content to young engineers, designers, architects, manufacturers, and fabricators.

Phil Malone, Founding Director, GEARS, Inc. (Garrett Engineering And Robotics Society)

Phil is an embedded-computer nerd, who started his career with the Intel 8080 and has never stopped learning. His career focused on creating Telemetry and GUI tools, used to build operator controls for deep-ocean Remotely Operated Vehicles (ROVs). One highlight of this career was participating in the 1998 HMS Titanic Expedition. More recently Phil has concentrated on inspiring youth to pursue careers in Science and Technology: by founding the GEARS Inc. non-profit to support the mission of *FIRST*[®], and by creating independent robotics programs (such as SuGO). Phil is active in the community, and provides fun Engineering exposure to over 300 5th graders each year through Garrett County's "College and Me program".

Justin Manzo, Ph.D., Manager, Center for Robotic Systems and Simulation, Booz Allen Hamilton, Strategic Innovation Group

Justin is a Senior Lead Engineer with Booz Allen Hamilton's Strategic Innovation Group. He supports government clients such as the Defense Advanced Research Projects Agency (DARPA) and the Advanced Research Projects Agency-Energy (ARPA-E), providing assistance on prosthetics, robotics, and robot simulation. As part of his work on the DARPA Robotics Challenge program, Justin helped stand up the Gazebo robotic simulation environment. He is a *FIRST*[®] Alumnus (FRC Team 92) and Mentor to FRC Team 2900. Justin holds a doctorate in mechanical engineering from Cornell University.

John Mann, Commander, US Navy

John graduated from the University of Illinois, Urbana-Champaign with a Bachelor of Science Degree in Civil Engineering and was commissioned an Ensign on August 11, 1997. Additionally, Mann received a Masters of Human Resources and Industrial Relations from the University of Illinois in 2003. Prior to reporting to NRD St. Louis, Commander Mann served as executive officer, Navy Operational Support Center St. Louis. Mann recently returned from a deployment as an individual augmentee where he served as a Strategic Planner in J5 on U.S. Forces Iraq in Baghdad, Iraq from January 2011 to November 2011.

Other operational tours included: Engineer Officer in USS Anzio (CG 68) from August 2006 to March 2008; Engineer Officer in USS Preble (DDG 88) from January 2005 to July 2006; Main Propulsion Assistant in USS Gettysburg (CG 64) from May 2000 to July 2001; and Combat Information Center Officer/Main Propulsion Assistant in USS Sentry (MCM 3) from June 1998 to May 2000. During these operational assignments, he has deployed two times to the Arabian Gulf and/or Mediterranean Sea. Mann's previous shore tours included: Reserve Component Officer Community Manager for the Unrestricted Line Communities at Military Community Management (BUPERS 3) in Millington, Tenn., from April 2010 to September 2012, Commanding Officer, NOSC Louisville, Ky., from April 2008 to April 2010 and Naval Science Instructor and Freshman Advisor at Naval Reserve Officer Training Corps Unit, University of Illinois from August 2001 to July 2003.

Mann's personal decorations include the Defense Meritorious Service Medal, six Navy Commendation Medals, three Navy Achievement Medals, and various unit and campaign ribbons.



Joe Markee, Original Team Mentor, FRC Team 4176

Joe is a retired General Dynamics Engineer and a two time nominee for the Woodie Flowers Award.

Andy Marshall, Iowa Senior Mentor, FIRST®

Andy has previous experience with National Instruments, John Deere, and Rockwell Collins, and he is committed to contributing to the talent pipeline. He learns everyday how people can contribute to one-another's development and well-being. With a focus on supporting *FIRST*[®] students and volunteers, it is a near limitless opportunity for to witness people challenging themselves to do amazing things to help one-another.

Adam Martin, Senior Technical Support and Special Projects Engineer, Intelitek

Adam is a Senior Technical Support and Special Projects Engineer at Intelitek. He has been a *FIRST*[®] mentor for over 10 years, both in design and programming. He is currently the Lead Design Mentor for FRC Team 501. Adam enjoys learning and creating new things, be it software or hardware. In his spare time he works on automobiles, builds robots and programs.

Justin Mathews, Electronics Engineer, Modern Robotics

Sky Matthews, IBM Distinguished Engineer and Chief Technology Officer, IBM's Watson Internet of Things

Sky is responsible for technical strategy and directions related to the Internet of Things within IBM. Sky has lengthy experience working with clients in complex and embedded systems development across many industries, including telecom equipment, aerospace/defense, automotive, and electronics. His current areas of focus include cognitive analytics for IoT, security and privacy, and cloud and edge architectures. Prior to his current role, he was the CTO for the Systems Engineering and Embedded Software portfolio in IBM Rational. He has over 20 years of experience working on tools for engineering of complex and embedded systems. Sky is based in Research Triangle Park, North Carolina and holds a BSc in Computer Science from Acadia University in Nova Scotia, Canada.

Linda Maulding, Mechanical Engineer and Entrepreneur

Linda has over 30 years in engineering technology including work experiences at General Motors' Fuel System Division and has recently retired from the Xerox Corporation. Linda attended Tuskegee University & Rochester Institute of Technology (RIT). She has been active in *FIRST*® for the past 17 years, as an engineering mentor for FRC Team 191 (X-Cats) area *FIRST*® LEGO® League teams and as a past rotating member of the *FIRST*® Robotics Competition Game Design Committee. Linda is very active in her community—she runs a reading/math tutoring program for some 200+ students at an inner city elementary school and teaches robotics at a high school in Rochester, NY.

Matt May, Education Team, SolidProfessor

For the past ten years, Matt and the Education Team at SolidProfessor have been at the forefront of the technology revolution that is transforming how students learn. Using the most advanced technologies and instructional design techniques we deliver world-class education content to young engineers, designers, architects, manufacturers, and fabricators.



James McArthur, RoboCamps Coordinator, Australia

James in an alumnus and mentor on FRC Team 3132, Thunder Down Under from Sydney Australia. He has been a part of *FIRST*[®] since 2011, mentoring 3 FTC, 11 FLL and 3 FRC teams (outside of Robots in the Outback) in that time. James now manages the RoboCamps sustainability program in Australia, helping teams and *FIRST*[®] raise money through holiday camps; He also manages an outreach program funded by the Australian government that brings *FIRST*[®] to low-income communities across Sydney. Robots in the Outback trip was the most amazing experience that will have long-lasting impact for the communities reached.

Erin McCallum, President, Washington FIRST® Robotics

Erin has spent 26 years successfully raising more than \$164 million for a number of high-profile community organizations in this region and is a proven leader in both non-profit and political fund raising communities. Her projects have been diverse, encompassing arts, education, environment historic preservation, the health sector, and politics. As President of Washington *FIRST®* Robotics, Erin works closely with individuals, businesses, trade associations, and public entities who share the passion in helping kids ages 6-18 to become leaders in science and technology through team and mentor based experience. Erin is an active volunteer with several nonprofit and community organizations including serving on the Board of Directors for Girl Scouts of Western Washington and troop leader and Gilda's Club. She is a fourth generation Washingtonian, born and raised in Yakima, and is forever inspired by her husband, their three teen age/young adult children and the many animals on their North Bend farm.

Drew McConnell, Digital Learning Manager, FIRST®

As a life-long learner, Drew McConnell believes that learning happens 24/7. Every day he is learning how to be a better husband, friend, neighbor, teacher, citizen, and employee. As Manager of Digital Learning at *FIRST*[®], he is responsible for empowering the *FIRST*[®] community to be lifelong learners through the use of digital tools. He is dedicated to the idea that we can create a better world by inspiring and empowering people to pursue learning in all aspects of life. He began his career as a technology trainer at Abilene Christian University, where he was responsible for training students and faculty in the use of various equipment and software applications to create media. In this role he also performed research in the use of gamification to foster motivation and self-direction in learners. McConnell has also worked as a technology trainer and instructional designer, designing and implementing courses on the creation of mobile applications. Prior to joining **FIRST®** in 2015, he was the Director of Online Learning for Connected Consulting, a company dedicated to empowering schools to create positive change through the implementation of technology and learner-centered instructional practices in the classroom. In addition to his work at FIRST®, McConnell volunteers at a Nashville high school teaching an Introduction to Programming course. He received a Bachelor of Science degree in Computer Science from Abilene Christian University and a Masters of Arts in Learning Technologies from Pepperdine University. The hours in the day are not long enough to fulfill the pursuit of all his hobbies which include developing mobile apps, writing and playing music, making, gardening, cycling, running, rock climbing, and hiking.



Greg McKaskle, Chief Software Architect, National Instruments

Greg is a seasoned LabVIEW FRC veteran. He has been a part of the NI/ *FIRST*[®] partnership since its beginnings in 2008 and a member of the NI LabVIEW team for over 25 years. Greg's robotics expertise covers a broad range of topics including vision, communications, and general programming. He is currently the mentor for FRC Team 2468.

Colton Mehlhoff, Engineer, Modern Robotics

Colton is a *FIRST*[®] alumnus of FTC Team 4140 Fish in a Boat.

Alan Melchior, Associate Director and a Senior Fellow at the Center for Youth and Communities, Brandeis University

Alan brings over twenty-five years of experience managing a wide variety of policy, evaluation, and technical assistance and training initiatives in the fields of youth, workforce, and community development. He is the lead evaluation partner for the *FIRST*® robotics programs since 2002 and has conducted more than a dozen studies of *FIRST*®'s national after-school robotics programs (*FIRST*® Robotics Competition, *FIRST*® Tech Challenge, and *FIRST*® LEGO® League). He currently leads the multi-year longitudinal impact study of *FIRST*® programs that is tracking over 1200 *FIRST*® participants and comparison students over a five year period to assess the program's impacts on STEM-related attitudes and educational and career choices. Other STEM-related work includes an evaluation of an initiative aimed at increase the capacity of public libraries to serve as STEM resources in their communities and ongoing evaluation work with Earth Force, a national environmental education and service-learning initiative.

Amr Metwally, Director of Sponsorship, FRC Team 1885, ILITE Robotics

Amr is a junior at Battlefield High School and has been with ILITE for 3 years, with a total of 7 years of Robotics experience. He was a 2015 Dean's List Finalist and a proud part of ILITE's Business Team. Amr is also a part of the Cyber Patriot program, as well as multiple clubs and honor societies with Robotics being his number one priority.

Kelly Meyer, Assistant Director of Admissions, Rose-Hulman Institute of Technology

Kelly has been working in the admissions world since 2012. Her background is in music performance, and she previously worked in music admissions. In 2013, she joined the STEM world and the admissions team at Rose-Hulman—the #1 ranked undergraduate engineering school in the US. At Rose-Hulman, she supervises the admissions ambassador group of thirty students, meets with the many visitors who come to campus, works with the summer program Operation Catapult, helps with campus programs, and travels to Michigan, Tennessee, Kentucky, Colorado, and Eastern Indiana to recruit students. In February of 2016, Kelly was named the "Rising Professional" of her state organization, Indiana Association for College Admission Counseling (IACAC) for her work on the Professional Development Committee in 2015. When not hard at work to recruit the best and brightest future engineers, mathematicians, and scientists to her campus, Kelly enjoys reading, television, cooking, baking, playing her viola, board gaming, and spending time with her family.



Brad Miller, Director FIRST[®]/ WPI Research Group, Worcester Polytechnic Institute

As a member of the FRC Control Systems Team, Brad has been active in the development of WPILib for C++ and Java and all the associated tools since it was first released for the cRIO in 2009. He has also been a mentor for FRC Team 190 since 2001.

Steve Miller, Senior Lead Engineer, Booz Allen Hamilton

Steve is a Senior Lead Engineer in Booz Allen Hamilton's Commercial High-Tech Manufacturing and Retail Services practice. As a Data Scientist, Steve develops applications that streamline data aggregation, model relationships between variables, and summarize and visualize conclusions. Steve specializes in building models that allow clients to quantity cybersecurity, terrorism, and all-hazard risk. Steve has worked with clients in both the government and commercial sectors across several industries including automotive, transportation, aviation, disaster preparedness, health, and defense. Steve is currently working with a major automotive OEM to design and build an advanced vehicle cybersecurity analytics platform. The platform includes a variety of custom models, big data applications, and interactive dashboards that allow cyber analysts to assess adversarial risk to the connected vehicle ecosystem, prioritize mitigations, scope the magnitude of emerging vulnerabilities, and identify cyber intrusions on the vehicle. As a project lead, Steve is involved in every aspect of the project, from concept to implementation. He works with the client to pinpoint high value data sets, define requirements, develop algorithms, write code, and then translate analytic outputs into executive level technical reports and presentations.

Prior to joining Booz Allen, Steve worked as a Systems Engineer at Raytheon. As a Project Manager, he field tested early stage threat detection equipment for the Department of Homeland Security. Steve has a BS in Operations Research and Industrial Engineering from Cornell University. Outside of work, Steve is an avid drag racer and builds and tunes his own race car. He also has a passion for endurance sports, competing in several triathlons, marathons, and open water swims each year. You can connect with Steve on Twitter @s4miller.

Peter Mitrano, FIRST[®]/ WPI Research Group, Worcester Polytechnic Institute

Peter is a Robotics Engineering/Computer Science student at WPI who develops the simulation plugins for Gazebo that connects the WPILib Java/C++ program to the simulator.

Gaige Moore, Primary Builder, Programmer and Driver, FTC Team 247

Gaige is a junior at Pope John XXIII Regional High School in Sparta, NJ. Her interest in robotics began in grade school when she joined an after school FLL club. She joined Pope John's FTC team 247 as a freshman. Gaige quickly became the primary builder, programmer, and driver on her team. Because of her leadership, Gaige earned a varsity letter in robotics her first year, which is unusual for freshmen on Pope John's teams. She extensively mentors an area grade school FLL team and works tirelessly on other outreach activities. Her accomplishments lead to Gaige becoming one of New Jersey's two FTC Dean's List Finalists in 2015, an honor only about a hundred students in the United States achieved. She will be applying to engineering colleges in her senior year and is considering a major in biomedical engineering.



Saura Naderi, Staff Career Development Specialist, Qualcomm Technologies, Inc.

Saura is the lead engineering instructor and designer of the Qualcomm Thinkabit Lab. She works closely with local education and community based organizations to develop programming that will engage the middle school population of San Diego in STEM-focused opportunities and provide exposure to the world of engineering. Prior to joining Qualcomm, Saura worked at UCSD where she developed the myLab program to inspire passion in engineering for K-12 youth. Her mission, and that of the myLab program, was to give aspiring engineers the opportunity to research, design and implement their own ideas. Saura's most well-known project became known as the "robotic hats project" where students of all ages used Arduino microcontrollers to create robotic hats that move, illuminate and activate through software and hardware development. Saura earned her undergraduate degree in engineering physics from UCSD Jacobs School of Engineering. In 2011, she spoke at TEDx San Diego where she shared her efforts to inspire passion in engineering and diversifying STEM fields. In 2013, she was named as one of the "Top 10 UCSD Exemplary Employees of the Year" and received the Athena Pinnacle Award for Education.

Tammy Nguyen, FRC Team 4911, CyberKnights

Tammy is a senior and has been a member of FRC Team 4911 CyberKnights for 2 years. Her participation in Unified Robotics made a huge impact on her life and goals. She has been a large part of the growing Unified Robotics program because she sees the importance of sharing her experience, skills, and passion with others. Tammy plans to major in architecture at Cal Poly next year.

Molly Nicholas, Engineer, Qualcomm Technologies, Inc.

Since starting at Qualcomm Technologies a year and a half ago, Molly has worked on a wide variety of projects, from hacking the Linux kernel (bringing up Android on a new system-on-a-module), to designing and constructing a streamlined build process that reduced build times by 30 minutes and build footprints by 15 GB, to her current project: enabling robotics on the Snapdragon platform for the *FIRST*[®] Robotics competition. She is also the inventor of the Qbadge, an interactive wearable device that facilitates engaging, interactive experiences. Previously, Molly studied clowning and circus arts and performed as a puppeteer with Liebe Wetzel's Lunatique Fantastique. She continues to love acrobatics, and does as much hiking and camping as she can when she's not busy tinkering on various projects.

Kate Nolan, Materials/Process Engineer, The Boeing Company

Kate works on finishes, corrosion protection, and paint operations support for the new 777X airplane. She became a collegiate member of the Society of Women Engineers (SWE) and soon discovered a passion for STEM outreach to K-12 students and their adult influencers. Kate seeks to recognize innovative and impactful outreach by SWE members around the globe, through her roles on SWE's society-level Outreach Committee (Wow! Innovation Challenge Lead) and Awards & Recognition Committee (Outreach Awards Coordinator). She is also the Speaker Session Coordinator for the 2017 SWE Region I Conference in St. Louis, and is part of the Boeing/St. Louis SWE planning team. Kate is a life member of SWE and holds a B.S. in Chemical Engineering and minor in German from the University of Missouri.



Doug Norman, Senior Software Engineer, National Instruments

Doug has worked at National Instruments since 1994 and joined the LabVIEW FRC team in 2009. He has a long history of bridging the gap between hardware and software on the LabVIEW team and is known for his ability to build the mechanics of complicated demos. Doug's areas of expertise include general LabVIEW programming, hardware/software integration, and example creation.

Jennifer O'Callaghan, FIRST[®] LEGO[®] League Community Engagement Manager, FIRST[®]

Jen became the *FIRST*[®] LEGO[®] League Community Engagement Manager in 2013. She began her career at *FIRST*[®] as a *FIRST*[®] LEGO[®] League Partner Services Manager in the SMART MOVE season, bringing with her a decade of experience as a writer and editor, along with an unforgivable affinity for bad puns and song parodies. She is a graduate of the College of Wooster (Ohio), which is frequently mistaken for Worcester Polytechnic Institute.

Victor Odelbo, Electrical Engineer, FTC Team 8728

Victor is a 9th grade student at The Wolcott School. He enjoys working with technology and robots and tinkering.

Cathy Olkin, Deputy Project Scientist, NASA's New Horizons Mission to Pluto

Dr. Olkin is a planetary scientist at the Southwest Research Institute and *FIRST*[®] mentor (FLL and FRC) since 2009. She investigates icy outer solar system worlds using infrared spectroscopy to learn about the composition of their surfaces and stellar occultations to investigate tenuous atmospheres. She has worked on NASA's New Horizons mission to Pluto for more than a decade. She supports the color camera and composition-mapping instrument on the spacecraft. As the Deputy Project Scientist on the mission, she worked on the Pluto encounter planning team to design and implement the scientific observations at Pluto. Today she is busy analyzing the data returned from New Horizons and proposing a new mission to NASA <u>https://en.wikipedia.org/wiki/Lucy (spacecraft)</u> surveying the diversity of Trojan asteroids – the fossils of planetary formation.

Clayton Ou, Student, University of California-Davis, Mentor, FRC Teams 115, 1678, 3501

Clayton is a *FIRST*[®] alumnus and now mentor in his eighth year of FRC. He joined the FRC team at his high school as a freshman, eventually becoming responsible for most of the team's media and communications. Clayton is now attending his final year at the University of California, Davis, studying Technocultural Studies, an interdisciplinary major crossing the study of media and technology's impact on society and culture with hands-on media production, programming, and electronics. After briefly mentoring other local teams, he landed himself in his current position as a public relations & media mentor for FRC Teams 115, 1678, and 3501. Clayton also regularly helps coordinate and support FRC-related events around Northern California, including offseason competitions, FRC-geared workshop events, and team outreach demos.

Kylie Palles, Computer Scientist, FTC Team 8728

Kylie is a 9th grade student at The Wolcott School. She enjoys working with technology and robots and Computer Science.



Robert A. (Bob) Payne, III, Mechanical Engineering Instructor, SUNY Polytechnic Institute

Bob has 20 years of experience in manufacturing management and is an adjunct mechanical engineering instructor at SUNY Polytechnic Institute in Utica, NY. He is the coach for FTC Team 4082, the RoboSpartans. The RoboSpartans started in 2007 as a *FIRST*[®] LEGO[®] League team, moving into *FIRST*[®] Tech Challenge after 2 seasons in 2010. Currently in their 6th and final FTC season, the team is participating in their 3rd World Championship after being a finalist for the Inspire & Connect Awards in 2013 and 2015. The RoboSpartans are the founders and facilitators of the FTC TEC Network Google Community with over 160 *FIRST*[®] Tech Challenge members from 35 States and 8 Countries. This season alone, the team hosted over 20 Google Hangouts. They are also members and certified prosthetic hand providers for <u>enablingthefuture.org</u>

Lisa Marie Payne, Business Consultant and Founder, FTC TEC Network

Lisa has 15+ years of experience in marketing communications, train-the-trainer and team development consulting. She the Manager for FTC Team 4082, the RoboSpartans, the Founder of CNY+: CNY FTC Team Consortium and Marketing Advisor of the FTC TEC Network Google Community.

J. Stephen Pendergrast, Teacher, Pope John XXIII High School

Stephen has a Master's degree in Computer Science from Rutgers University and was a distinguished software engineer at Bell Laboratories before entering the world of high tech entrepreneurship. He has started and sold several Internet companies, including what was at the time the largest eBook retailer in the United States (to Barnes and Nobel in 2008). He is a published author, both in fiction and nonfiction, and has several patents pending in algorithmic genomics. He has coached robotics for ten years, including FLL, FTC, FRC, and space based Zero Robotics teams. During his coaching career many of his teams have qualified for national and international championships. He currently teaches AP Physics and Honors Robotics at Pope John XXIII High School in Sparta, NJ, where he also coaches the school's three FTC teams and one Zero Robotics team. He frequently presents workshop material on FTC topics in his home state of New Jersey.

Paul Protentis, Booster President and Mentor, FRC Team 4176

Paul is a successful entrepreneur and real estate investor.

Carla Proulx, Alliances Manager, FIRST®

Carla has been with *FIRST*[®] since 2007. She works with the *FIRST*[®] Strategic Alliances collaborating on their current STEM community outreach and workforce development programs. Prior to *FIRST*[®], she was in the environmental engineering field for 15+ years. From that experience, Carla became a strong proponent for women in engineering and through various New England professional associations; she mentored new college graduates entering the industry. Prior to joining *FIRST*[®], she contracted with the NH Center for School Reform to support the opening of the first STEM charter school in New Hampshire. She is a frequent presenter, panelist and contributor to women in STEM initiatives with the Society of Women Engineers and is a member of the National K-12 STEM Alliance for NCWIT and National PTA.



Reeya Rabena, Director of Finances and Co-Director of Business and Outreach, FRC Team 1885, ILITE Robotics

Reeya is a senior at Battlefield High School in Haymarket, Virginia, and has been with the team for 3 years. In addition to FRC, she has participated in FTC for 2 years and was introduced to *FIRST*[®] through FLL. Reeya is also part of many other clubs at her school, one of them being the Student Council Association, where she previously served as the President of her class.

Tyler Radoha, Mechanical Engineer, FTC Team 8728

Tyler is a 9th grade student at The Wolcott School. He enjoys working with robots, circuitry and design.

Andrew Raine, Manager, Fiat Chrysler Automobiles, Coach FRC Team 2834

Andy has been a part of *FIRST*[®] for 6 years and started as an FLL coach. He is presently in his second year as Coach for the Bloomfield Hills High School Bionic Black Hawks FRC Team 2834. He started on Team 2834 as a scouting mentor. He co-manages the *FIRST*[®] program for Bloomfield Hills Schools with over 320 participants from Jr. FLL through the high school team. Andy has a undergraduate and Master's Degree from Penn State University in Business. Team 2834 Founder Dr. Ed Law instituted scouting and data analysis as a core competency of the team. Each year the comprehensive scouting and rating database is available on our website: <u>team2834.com</u>

Ria Raj, FRC Team 2974, Walton Robotics

Ria is a 9th grade student at Walton High School in Marietta, GA. This is her first year on the Walton Robotics FRC team working on the awards team. She is also involved in Girls *FIRST*®, the making of Camp in a Can and "The Adventures of Walt", and giving presentations at different conferences. Through her involvement on the team, she is able to meet professionals and peers, as well as develop her future life skills like working with a team and public speaking. She hopes to continue the Walton robotics team for all four years of high school.

Shelby Raper, Admissions Counselor at Missouri University of Science and Technology

Shelby joined the admissions team at Missouri S&T in 2014 and now serves as a regional representative based out of the St. Louis area. In addition to traveling to high schools and college fairs, meeting with families, and advising students on the admissions process, she also reviews applications for admission and makes admission decisions. Shelby graduated from Truman State University in May 2014, where she worked for Upward Bound advising high school seniors on college applications.

Breigh Rhodes, LEAP Teacher & Educational Source Specialist for the WeDo 2.0 curriculum

Breigh Rhodes is a science curriculum specialist and educator in Zachary, Louisiana, and she served as the Educational Source Specialist for the WeDo 2.0 curriculum. Breigh's passion for coding began her first year teaching when she discovered **LEGO**[®] MINDSTORMS NXT and witnessed its potential for promoting creativity and critical thinking with her 2nd grade students. Since then, she's worked to bring robotics and coding to students from PK-12. Breigh says that in the classroom, she's continually inspired by the authentic learning and powerful inquiry that results from students' work with EV3.



Melody Ricci, Regional Director, Wisconsin FIRST®

Melody has been involved in grant administration for more than 25 years, initially seeking grants as an undergrad, and later as a college science instructor and grant writing professional. She has served as a grant reviewer for federal granting agencies such as the HRSA (Health Resources & Services Administration), USDA, (U.S. Dept. of Agriculture), and the NIH (National Institutes of Health) in program areas such as Advanced Technical Education. Melody is currently a grant coordinator for Boys & Girls Clubs of Barron County and an adjunct Science instructor for Kaplan University. Melody received her Bachelor's degree in Biological Sciences from Cal State University, Fullerton, where she also studied Scientific & Technical Writing. She went on to receive Master's degrees in Biological Sciences and Human Oncology from CSUF and UW-Madison and is currently taking courses through the Kaplan University Higher Ed College Administration and Leadership program.

Rei Rivera, Education Team, SolidProfessor

For the past ten years, Rei and the Education Team at SolidProfessor have been at the forefront of the technology revolution that is transforming how students learn. Using the most advanced technologies and instructional design techniques we deliver world-class education content to young engineers, designers, architects, manufacturers, and fabricators.

Jared Russell, Software Engineer, X (formerly called Google [x])

Jared has been a mentor for FRC Team 254, The Cheesy Poofs, for three years, and prior to that was an alumnus and mentor for FRC Team 341. He is a software engineer at X (formerly called Google [x]) working on robotics.

Diego Sanchez, Mechanical Engineer, FTC Team 8728

Diego is a 9th grade student at The Wolcott School. He enjoys working with technology and performing.

Archana Saxena, Software Quality Engineer, UL

Archana was born and raised in India, she started her career there as a Software Test Engineer after earning a B.S. in Electrical Engineering at Rajeev Gandhi Technical University in Bhopal. Archana worked at an electric substation where she had the opportunity to observe how power is generated, transmitted and subsequently distributed. After completing her Masters in Computer Applications in 2005, she worked as a manual Quality Analyst overseeing application work to ensure quality code standards. In 2008, Archana and her new husband, had the opportunity to relocate to the U.S. and settled in Nashville. Now a mother of a happy, healthy three year old, Archana is active in her community volunteering for children's educational initiatives.

Carol Scully, Regional Director, Connecticut for NE FIRST®

Carol is an accomplished, multi-talented visionary executive level professional, with a wide range of knowledge and a track record of consistent excellence in highly visible positions with respected corporations and non-profits in Connecticut.



Khyati Shah, FRC Team 2974, Walton Robotics

Khyati is a 10th grade student at Walton High School in Marietta, GA. This is her second year on the Walton Robotics FRC team, and her third year in *FIRST*[®]. Currently, she is the Assistant STEM Missions Director. This is her first year working on the awards team. She is the project lead of Camp in a Can and "The Adventures of Walt." Through her involvement on the team, she is able to meet professionals and peers, as well as develop her future life skills like working with a team and public speaking. She hopes to continue the Walton robotics team for her remaining years in high school.

Laurie Shimizu, Minnesota Senior Mentor, FIRST®

Laurie has contributed to many of the resources on the *FIRST*[®] Varsity Sport Resource page. Laurie has been the communications mentor on Team 1816 for ten years, the first Minnesota *FIRST*[®] team to offer Varsity Letters.

Fred Silberberg, FIRST[®]/WPI Research Group, Worcester Polytechnic Institute

Fred will be completing his Computer Science Master's degree next month and joining the Microsoft compiler team. He has been an active developer of WPILib and many of the associated tools. He created the Java installer and the system that automatically builds all of the WPILib suite.

M. Dianne Simmons, IT Director, FEDEX

Dianne and is responsible for the Design/Architecture of all system deployments in the U.S. Domestic Data Centers. Her team ensures Technical Standards Compliance while managing capacity ensuring that systems meet internal/external customer needs. Dianne joined FedEx in 1996 and quickly moved into management. In 2007, she was promoted to Director, IT Operations where she led a team of 160+ technical and management professionals in establishing a new data center in Colorado Springs and decommissioning the legacy data center in Memphis. Dianne holds a B.S.in Computer Science/Engineering from the University of Mississippi and has received the prestigious FedEx Five Star Award and other internal awards. She has also received the Memphis/Shelby County Achievers Award, which recognizes those who are positive, realistic role models in the Memphis/Shelby County Area.

Laurie Stach, Founder and Executive Director, MIT Launch

Laurie is the Founder and Executive Director of MIT Launch entrepreneurship programs for high school students. She is the also Program Manager for High School Education at the Martin Trust Center for MIT Entrepreneurship. Laurie holds a B.S. in mechanical engineering from MIT and an MBA from Harvard Business School.

Robyn Stephens, Study Manager, Social and Scientific Systems

Robyn has been an FLL coach for five years and this is her second year coaching an FTC team. The RoboFoxes are a four year legacy team that began early adoption of Agile methods.



Justin Stephens, Global Product Manager, Intelitek

Justin manages the STEM Pathways product portfolio. He holds a BS in Industrial Engineering from the University of Rhode Island, and he also earned his MBA from the University of New Hampshire. As the STEM Pathways product manager at Intelitek Justin is responsible for managing many products, including the mobile robotics line. In his spare time he enjoys renovating homes, playing golf and relaxing with friends.

Trisha Stommel, Associate Director of Admissions, Kettering University

Sarah Stray, Innovation Awards Manager, FIRST®

Sarah has been with *FIRST*[®] for 4 ½ years and oversees both the *FIRST*[®] Future Innovation Award sponsored by the Abbott Fund, open to *FIRST*[®] Robotics Competition and *FIRST*[®] Tech Challenge teams and the Global Innovation Award presented by XPRIZE®, open to *FIRST*[®] LEGO[®] League teams. She believes innovative thinking is like a muscle—the more you exercise and stretch it, the better you become. *FIRST*[®] teams exercise these muscles throughout their seasons so are uniquely poised to help solve real-world problems, one innovation at a time.

Lauren Stroemel, Lead Engineer, FRC Team 4911, CyberKnights

Lauren is a junior, is the engineering lead of FRC Team 4911, CyberKnights, and has participated in *FIRST*[®] for 5 years. She enjoys participating in Unified Robotics and wants to share the purpose and importance of the program. Lauren had the opportunity of introducing engineering concepts and igniting passion for STEM to Michael, a very capable student who had no previous experience in this area.

Mark Stults, Director of Operations, AndyMark

Justine Suegay, Co-President, FRC Team 1885, ILITE Robotics

Justine is a senior at Battlefield High School, she has been part of ILITE, and of *FIRST*[®], for 4 years. She has also been part of Team 1885's Business Team and Graphic Design Team, serving as Director of Graphic Design in her junior year. In addition to Robotics, she is also President of Key Club, loves volunteering and learning foreign languages; skills she also uses within ILITE.

Mikel Thompson, Teacher, King's High School

Mikel is the technology teacher at King's High School and the Head Coach of FRC Team 4911, CyberKnights. He participated as a mentor in Unified Robotics and quickly grew passionate about the program as he saw the dramatic impact it had on all the students involved. He has also been helping connect *FIRST*[®] with Special Olympics® to grow the program to a national level.

John Tilson, Teacher, Hardin Valley Academy

John teaches Physics, Robotics, and Mathematics at Hardin Valley Academy, a public high school in Knoxville, Tennessee. He is the coach for FRC Team 3824, HVA RoHAWKtics.



Brigid Toner, Liners Machining Supervisor, Caterpillar, Inc.

Brigid is a *FIRST*[®] alum, who credits her 4 years with *FIRST*[®] as the catalyst for her career in engineering. She graduated from Hope College in Holland, MI with a B.S. in Mechanical Engineering and is currently in a rotational program at Caterpillar that focuses on manufacturing. As part of the program, Brigid spent a year and a half as a Manufacturing Engineer working on bulldozers. She currently supervises a line that machines engine cylinder liners for Caterpillar engines. As a *FIRST*[®] mentor, Brigid supported Michigan FRC Team 141 (Wobot) while at college and is currently a Mentor for her original high school FRC Team 2081 (Icarus).

Bernie Trilling, CEO and Founder, 21st Century Learning Advisors

Bernie is the former global director of the Oracle Education Foundation, where he directed the development of education strategies, partnerships, and services for the Foundation and its ThinkQuest programs. He has served as Board Member of the Partnership for 21st Century Learning (P21), co-chaired the committee that developed the highly regarded Framework for 21st Century Learning, and is currently a P21 Senior Fellow. Prior to joining the Oracle Education Foundation, Bernie was Director of the Technology in Education group at WestEd, a U.S. national educational laboratory, where he led a team of education. He has also served in a variety of roles in both education and industry, including Executive Producer for Instruction at Hewlett-Packard Company, where he helped lead a state-of-the-art global interactive distance learning network. Bernie co-authored the widely acclaimed book, 21st Century Skills: Learning for Life in Our Times

Recently, Bernie has been researching the common practices of over 400 schools that are models for 21st century learning as part of the Hewlett Foundation's Deeper Learning initiative.

Bernie is a lifelong, self-propelled learner. He has devoted much of his career to furthering the kinds of learning experiences he has found most engaging, collaborative, relevant, and powerful, working to make these experiences available to learners of all ages.

Logan Tutt, FIRST[®]/ WPI Research Group, Worcester Polytechnic Institute

Logan is a Robotics Engineering/Mechanical Engineering student at WPI who develops the methodology and plugins for SolidWorks to build robot models that can be simulated in Gazebo.

Paul Uttley, Engineer and R&D Manager, Pitsco

Juan Valentin, Education Program Advisor, Office of Education and Outreach (OEO), United States Patent and Trademark Office (USPTO)

Juan is responsible for the development and implementation of educational projects of national scope, with a particular emphasis on the development of STEM, design, or invention-focused projects infused with intellectual property (IP) concepts. Prior to joining the OEO team, Mr. Valentin was a USPTO patent examiner for 12 years, specializing in the art of optical measuring and testing devices. Community outreach is an important part of Mr. Valentin's life, his volunteer work with the Society of Hispanic Professional Engineers includes youth education and outreach on behalf of engineers and leadership training for members of all levels within the organization. Mr. Valentin holds a Bachelor's degree in mechanical engineering from the Clarkson University.



Sam Viron, SELF Fellow, University of Kansas

Sam is double majoring in Civil Engineering and Mathematics at the University of Kansas. She is an active collegiate member of the Society of Women Engineers (SWE) serving as K-12 Outreach Chair, a participant in the University Honors Program and a KU Student Ambassador. Sam discovered *FIRST*[®] in the 6th grade when she joined a *FIRST*[®] LEGO[®] League team, a life changer for her. In high school, she joined FRC Team 1710 (Ravonics Revolution) from Olathe, KS. During her time on the team, Sam was involved in proposal writing, K-12 community outreach efforts, the electrical team and was very active in the annual Chairman's Award presentation. As a *FIRST*[®] alum, Sam credits *FIRST*[®] for the valuable communication, engineering and leadership skills she has learned as well as the great opportunities and experiences she has had to showcase the talents learned. Her commitment to *FIRST*[®] and to FRC Team 1710 continues in her new role at Team Mentor.

Dushyant Wadivkar, Manager (Advanced Engineering), Robert Bosch LLC

Dushyant aligned his love for cars intentionally with his vocation. He has been focused on Vehicle Dynamics and Active Safety Systems since 2003. In 2015 he began leading an Advanced Engineering Team with a clear charter to map a way to partial and highly automated vehicles in the near future. Recreationally, he enjoys track days and running. Connect with him at dushyantw@gmail.com or @Turn_one on twitter.

Davinci Wallace, Associate Director of Traditional Admissions/Assistant Men's Basketball Coach, Milwaukee School of Engineering

George Walls, Senior Director of Admissions, Capitol College

Capitol College is the only independent institution in Maryland focused in engineering, cyber security, computer sciences and management. Responsible for corporate outreach, partnerships and service as it relates to the enrollment management mission of the institution, George leads a team of dedicated professionals in the mission to continuously exceed recruitment goals while enhancing the diversity, quality and fit of the Capitol student body. George is the ostensible face of the institution's community and STEM outreach missions with various partnerships and activities.

George is also the founder and CEO of EM Consultants, an educational marketing and events management consultancy based in the DC metropolitan area with such clients as The Washington Wizards, the National Association of College Admissions Counselors, *FIRST®* Robotics (National Capital Region). He is also the newest member elected to the Board of Directors for "First Generation College Bound", a leading nonprofit in Maryland continuing its 22 years of connecting students and families to the opportunity to attend and succeed in college.

Daniel Wang, FRC Team 4911, CyberKnights

Daniel is a junior and has been a member of FRC Team 4911, CyberKnights, for 3 years and has participated in *FIRST*[®] for 5 years. Unified Robotics has personally impacted Daniel, as he has learned that students with special needs often have tremendous abilities that are often overlooked. Daniel realized that Unified Robotics is a great tool for companies to evaluate an individual's creative problem solving skills, and is much more effective than standardized testing or conventional interviewing practices.



Rebecca Whitaker, FIRST® Tech Challenge Affiliate Partner, University of Iowa

Rebecca is an employee of the College of Engineering at The University of Iowa. Her involvement with *FIRST*[®] began a several years ago with a phone call followed by and a conversation with the College's Dean who said "we have a new project for you". At the time, she did not know anything about FIRST and thought it was going to only last a year. Her first *FIRST*[®] experience was at Worlds in Atlanta in 2009 and from then on she knew she needed more comfortable shoes and *FIRST*[®] was going to be around for a while. In Iowa, she has grown FTC to over 210 teams. Her goal is 250 teams next year. During Res-Q and under Rebecca's leadership & guidance, Iowa had over 350 volunteers, impacted over 2500 students and hosted over 90 events including the 3rd Annual North Super Regional. She enjoys seeing the coaches, volunteers and mentors all work together to inspire the students. Ms. Whitaker believes if you find a job you love – you never have to work a day in your life.

Elaine Wilder, IT Project Manager, UL

Elaine began her career back in 1983 where she remembers her first computer being a TRS-80 with an 8" floppy disk that was kept in a cooled, locked room and used by everyone. Her love of computers and software prompted her to join a software company which turned out to be a great career move. In 2011, her company was acquired not once, but twice and she ended up working for UL, known as the safety company. Elaine recently received PMP certification and loves working with the talented people who help move forward the projects that keep UL growing. She was introduced to *FIRST*® by her nephew, a FRC team member in Florida and soon learned that her employer was also involved. As the official Safety Partner to *FIRST*®, UL engages staff volunteers as Safety Inspectors/Ambassadors at *FIRST*® events. Driven by her passion for *FIRST*®, Elaine now heads UL's Safety Ambassador recruitment/training program.

Chris Wilkes, Project Manager, Lockheed Martin

Chris is a project manager for Lockheed Martin and a Project Management Institute certified Project Management Professional and Agile Certified Professional. He has been an FLL coach for five years and this is his second year coaching an FTC team. The RoboFoxes are a 4 year legacy team that began early adoption of Agile methods.

Aaron Willcock, Computer Science PhD student, Wayne State University

Aaron is a *FIRST*[®] alumnus from FRC Team 217, Thunderchickens (2011-2012), and returned as their mentor from 2013-present, a CSA from 2014-present, and an FTA from 2015-present. He has participated in the development of the 2015 FRC Control System with *FIRST*[®] and now researches Real-Time and Cyber-Physical Systems. Aaron has presented and instructed in workshops in Utica Community Schools (UCS) and the University of Michigan on Women in STEM through programs like Hello World and the *FIRST*[®] Alumni and Mentors Network at Michigan (FAMNM). He actively supports equality initiatives through mentoring, robotics instruction, and independent study.

Novia Wong, Student, San Jose State University, Mentor, FRC Teams 604 and 846, FLL Teams 16333 and 17419

Novia is a *FIRST*[®] alumna. While on FRC Team 604, she held various positions, including the team manager and vice president of the team. She is currently attending San José State University, studying psychology and math/statistics. Novia is also a mentor for FRC Team 604 and 846, and a second year



coach for FLL 16333 and 17419. She also volunteers and helps run FRC off-season events, and gives workshops to teams in Northern California biannually.

Kevin Zheng, Chief Strategist and Tactician, FRC Team 2834

Kevin is a senior at Bloomfield Hills High School. Team 2834, the Bionic Black Hawks, are from Bloomfield Hills, Michigan. In the fall, Kevin will be attending the University of Michigan to study Mechanical Engineering. FRC Team 2834 founder, Dr. Ed Law instituted scouting and data analysis as a core competency of our team. Each year we create and post a comprehensive scouting and rating database on our team website: team2834.com