

ST. LOUIS

Mike Amendola, Automation Professional

Mike has spent 7 years in the automation industry. He graduated from the Ohio State University with a degree in Mechanical Engineering. He has spent his time in the industry working as Field Service Engineer working in many different manufacturing environments such as metals manufacturing, food & beverage, tire & rubber, mining, material handling, and more. His work includes system upgrades to the latest automation technology as well as maintaining and repairing existing systems. Mike focuses on programmable controllers, variable frequency drives, servo drives, operator interfaces, and machine safety. He has been involved with *FIRST* since 2005. He was a mentor for *FIRST* Robotics Competition Team 677 in Columbus, Ohio while he was at Ohio a State and is currently a mentor for *FIRST* Robotics Competition Team 931 in St. Louis.

Kristine Atiyeh - Mentor FIRST Robotics Competition Team 125

Kristine has helped to develop Chairman's Award Winning Programs on 3 different *FIRST* Robotics Competition teams (125, 126, 175). She has consulted with dozens of other teams on how to prepare for award submissions, focusing on a year-long approach to continuous improvement and refinement. Kristine works as an art educator for elementary students in Massachusetts. She is also the Social Media Coordinator for the New England *FIRST* District as well as Co-Chair for the Greater Boston and Southeastern Mass District Events.

Andy Baker, President, AndyMark, Mentor for *FIRST* Robotics Competition Team 3940 and 2003 Championship WFA Winner

Andy is a husband and proud father of three *FIRST*-involved daughters. He has been a *FIRST* mentor since 1998, being involved on *FIRST* Robotics Competition teams 45 and 3940. He is an engineer and entrepreneur, and owner of AndyMark, Inc.

Rose Barra, Team Leader, FIRST Robotics Competition Team 20

Rose is the Academic Administrator for Math and Science at the Elementary level, Shenendehowa Central Schools, Clifton Park New York. She is also the Team Leader of *FIRST* Robotics Competition Team 20, The Rocketeers. She is passionate about fostering a love of math and science in young people and connecting them with members of the STEM community through *FIRST* Robotics Competition opening doors to career paths they may not have otherwise considered.

Jenny Beatty, Volunteer Director, STEMaction, Maryland

Jenny has been a facilitator for the BAA and is the Volunteer Director for STEMaction - working on recruitment and training of volunteers for all 4 *FIRST* programs in Maryland. She receives federal funding from the Volunteer Generation Fund where STEMaction has been recognized as a key STEM volunteer connector agency in Maryland. She served in the original class of Senior Mentors for *FIRST* (2004-2009) and is the co-founder of NEMO (the non-engineering mentor organization).



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.

Nancy Boyer, Ph.D., Director of Research and Evaluation, FIRST

Nancy has been leading the research and evaluation work at *FIRST* for over five years. In this role, she works closely with Brandeis University and other external evaluation firms to assess the impact of *FIRST* programs on participating youth. Nancy also conducts studies for the organization including evaluations of program effectiveness and outcomes, new initiatives, and pilots. She has been working closely with the Diversity and Inclusion Program to develop and assess new pilots and initiatives to broaden participation of underserved and underrepresented youth. Nancy has been in the research and evaluation field for over 20 years and has worked in academic settings as well as nonprofits.

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 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



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Sherry Comer, Director, Camdenton R-III Afterschool Services and National Afterschool Alliance Ambassador-Emeritus

Sherry has served as Director of Afterschool Services for the Camdenton R- III district for seventeen years. As Director, she is responsible for overseeing 8 sites that serve approximately 1000 students per school year and oversees 70+ staff members through Camdenton's innovative before/ afterschool programs. She also serves as an Ambassador Emeritus for the National Afterschool Alliance out of Washington, DC. In 2003, the Alliance chose her as one of the twenty-five individuals in our nation to work with local, state and national leaders to increase funding opportunities and to bring awareness to afterschool programs. In 2004 she was one of only seven individuals in the nation asked to serve a second term. She continues to work with the Alliance to increase the number of programs, find new funding sources and improve program quality. She was a founding member of the Missouri Afterschool State Network and serves on the afterschool STEM steering committee. With the addition of FIRST robotics to Afterschool she has become a strong STEM advocate. Starting with 21 students on a FIRST Robotics Competition team Sherry has helped to lead the Camdenton RIII district to become one of the fastest growing FIRST systems in the US with 1 in every 14 students being on a FIRST team out of a student body of 4,200. Mrs. Comer has received numerous awards for her work in the afterschool field including being named State Champion in 2011 at the National Breakfast of Champions in Washington, DC. Camdenton is currently the only school in the state of Missouri to have implemented the full progression of *FIRST* programs. The Camdenton afterschool system was named a state STEM model by 4-H. Camdenton R III schools is also the FIRST affiliate partner for Central/Southern MO.

Renee Becker-Blau, Executive Director of Indiana *FIRST*

Renee has been involved with *FIRST* for 15 years. She began as an *FIRST* LEGO League volunteer and member of *FIRST* Robotics Competition team 1675 from Milwaukee, Wisconsin, and continued her involvement in college by founding GO*FIRST*, a *FIRST* alumni student group, and serving as president of the program for three years. After graduating from the University of Minnesota-Twin Cities with a Bachelor of Science Degree in Scientific and Technical Communications, Renee became the *FIRST* Senior Mentor of Minnesota before moving to Indiana in August of 2013 to become a *FIRST* AmeriCorps VISTA to work on creating capacity building programs. In 2013 she worked with *FIRST* HQ and the Argosy Foundation to create the first set of materials for the *FIRST* Fundraising Toolkit. She became Executive Director of Indiana*FIRST* in September of 2014 and led the transition from the regional to district model of competition in the state.

Kija Davis, President, Purdue FIRST Programs

Kija is a junior in chemical engineering at Purdue and an alum of *FIRST* Robotics Competition Team 45 the TechnoKats, where she spent two years as the Business Lead of her team. She's also served as the Public Relations Director, Vice President, and President of Purdue *FIRST* Programs.



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Tim Easterling, LabVIEW Developer, Kauai Labs; Programming/Electrical Mentor, FIRST Robotics Competition Team 6043 (Allegan Tigers)

Tim is a 20-year veteran engineer from Greater Grand Rapids, Michigan with professional experience as a Test Engineer/Lead Equipment Engineer/Calibration Lead and Application Developer in the automotive industry, including significant robotics experience. Tim has developed the navX-AE and SF2 LabVIEW libraries, and is focused on making complex technology easy to use for *FIRST* Robotics Competition teams.

Amal Elhelw, FIRST Robotics Competition Team 1511, Rolling Thunder

Amal Elhelw is a Senior from Rochester, New York and a member of *FIRST* Robotics Competition Team 1511, Rolling Thunder. Passionate about film production and media, she is the teams lead Media student and apart of the Leadership and Strategy Sub teams. She has also lead the Chairman's Award efforts as well as being a presenter for the last 3 years.

Maria Esquela, Founder, e-NABLE in Maryland

Maria joined e-NABLE in 2014 and founded e-NABLE Maryland. In 48 days, she and a core group of adults, Scouts and other youth, learned to 3D print and assemble e-NABLE devices; created Lego-like wordless instructions and workshop materials; acquired donations, materials and facilities; held leadership training programs and conducted public workshops for 7-175 people aged 4 and up. The hands have gone to a medical team in the Middle East treating their local population and refugees. The devices have been gifted to people in the US, Israel, Syria, the Ukraine, Vietnam, Spain, Canada, Mexico. With their advisor, Johns Hopkins trauma surgeon and bionics expert Dr. Albert Chi, they've also printed three arms and helped fit and gift arms to two boys in Virginia and Tennessee. Maria is a member of the Maryland Medical Reserve and a certified HL7 CDA specialist.

FIRST Robotics Competition Team 1325, Inverse Paradox

FIRST Robotics Competition Team 1325, Inverse Paradox was founded in 2004, but only recently experienced an explosive growth in members. Since 2011, *FIRST* Robotics Competition Team 1325 has been making a name for themselves in their local community and beyond, consistently performing well on and off the field. At the Ryerson District Event this season, Inverse Paradox won their second Chairman's award, due to their dedication to sustainable outreach and team engagement.



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FIRST Robotics Competition Team 1629, The Garrett Coalition (GaCo)

FIRST Robotics Competition Team 1629, is nestled in the mountains of Appalachia, Maryland, where the team has committed to ensuring that all students in its rural county are "STEM Ready." The team takes every opportunity to share its vision to local and state school boards, county, state and federal governments as well as K-12 education conferences in Maryland. Most recently, the team presented a pre-conference workshop to educators at the Mid-Atlantic Conference on Personalized Learning. GaCo has been recognized for its efforts by receiving many Engineering Inspiration (EI) Awards including two Championship EI Awards as well as several Regional and District Event Level Chairman's Awards. FIRST Robotics Competition Team 1629 is proud to be part of the *FIRST* Chesapeake District.

FIRST Robotics Competition Team 1710, Ravonics Revolution

Based out of Olathe, Kansas, *FIRST* Robotics Team 1710 has emphasized the importance of diversity in STEM and FIRST since its beginning in 2005. The team has grown from 22 to 48 students throughout its twelve-year history, presenting at Championships twice and once representing *FIRST* at the international Society of Women Engineers conference, sharing the team's You Go Girl and STEM Connection initiatives. Additionally, the team seeks to spread the mission of *FIRST* to as many people as possible; other undertakings include reaching out to underprivileged students in the community and integrating eight *FIRST* Tech Challenge teams into the curriculum at their high school. Team 1710 aims to work with other teams to provide as many students access to STEM as possible.

FIRST Robotics Competition Team 1885, ILITE Robotics

FIRST Robotics Competition Team 1885, ILITE Robotics, is based in Haymarket, Virginia at Battlefield High School. ILITE (Inspiring Leaders in Technology and Engineering) is a multifaceted program providing technology and engineering educational opportunities to individuals from many 'walks of life' and from young to old, all while building on a foundation for a sustainable program. ILITE's mission is to inspire young people to become leaders in STEM by providing them with hands-on engineering and technology challenges with the mentorship of industry professionals to build a foundation of both technical and social skills and values which create leaders in technology and engineering.

FIRST Robotics Competition Team 2834, the Bionic Black Hawks

FIRST Robotics Competition Team 2834, the Bionic Black Hawks is from Bloomfield Hills High School in Bloomfield Hills, Michigan. Our motto Learn – Serve – Grow provides vision and guidance to our team. We value and promote a culture of support and encouragement and help each other do our best through mentored competency paths and creating leadership opportunities for every team member. Through our outreach and partnership, our school district presently has 49 teams (26 *FIRST* LEGO League Jr., 15 *FIRST* LEGO League, 7 *FIRST* Tech Challenge, and 1 *FIRST* Robotics Competition). A total of 350+ students participate across all programs.



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FIRST Tech Challenge Team 5975, Cybots

We are the CYBOTS, *FIRST* Tech Challenge Team 5975 from Denver, IA. We are a 5th-year team which started small but has now grown into a team of 13! We began as an *FIRST* LEGO League team and through the years have grown and competed in many different competitions. Competitions ranging from local events to state level, to national level, and eventually to World Championship level. The highlight being asked to represent Iowa at the 2015 Asia Pacific Invitational in Sydney Australia. We find outreach to be extremely important. Our growth as a team and the growth of *FIRST* in our community is a direct result of year-round STEM outreach our *FIRST* teams provide. Our entire team works diligently year-round to continuously expand our outreach mission and spread STEM to anyone that will listen at every possible opportunity both in and out of our community. Thus, *FIRST* involvement has quadrupled in the past 2 years and is storming through our community forever changing its culture. https://www.youtube.com/watch?v=tNNNjt8cs3M

FIRST Tech Challenge Team 8728, Bionic Wolves

Bionic Wolves *FIRST* Tech Challenge Team 8728 was founded in 2013 at the Wolcott School in Chicago, IL. Wolcott School offers an exemplary high school program for students with learning differences, tailored to the strengths and aspirations of each student. Employing best practices, Wolcott's expert faculty is dedicated to helping students gain self-awareness, confidence, and resilience as well as the academic, social, and communication skills to flourish in college and beyond. As valued members of a diverse and close-knit community, Wolcott students develop their sense of responsibility and purpose.

Jay Flores, STEM Ambassador, Rockwell Automation

Jay has a mission: instilling a passion for science, technology, engineering, and mathematics (STEM) in today's young minds. As a guest speaker, Jay is masterful in connecting STEM to everyday life and motivating students to become tomorrow's innovators. His high energy and intellect have been recognized by the Society of Hispanic Professional Engineers (SHPE), who elected Jay when he was 19 years old as the youngest voting national board member in SHPE history. He was also honored as one of 20 youths to present to congressional leaders and policy makers in 2014 through a LOFT (Leaders on the Fast Track) fellowship. Jay's STEM advocacy and outreach efforts support Rockwell Automation's Engineering Our Future[™] and Inspiring Young Minds[™] philanthropic priorities, including programs such as Project Lead the Way, ST Math and *FIRST*.

Chris Fultz, Head of Program Management, Defense, Rolls-Royce, Mentor for *FIRST* Robotics Competition Team 234 and 2010 Championship WFA Winner

Chris is a husband and proud father of three *FIRST*-involved children, having two boys and one girl. He has been a *FIRST* mentor since 2001, all with team 234. He is an engineer and manager at Rolls-Royce Corporation.



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Chris Gerth, Software Mentor, FIRST Robotics Competition Team 1736

Chris has been a mentor of team 1736 for three years. He has been doing robotics since his early college days at the University of Illinois Urbana-Champaign. When not building robots, Chris can be found writing controls software for large machines, or enjoying various foods.

Julia Green, Senior Business Analyst, Student Information Systems and Mentor, *FIRST* Robotics Competition Team #33, The Killer Bees

Julia is a mentor of *FIRST* Robotics Competition Team 33, the Killer Bees. She has mentored the team for 7 years as the "Everything but the Robot" mentor. A former National Board Certified Teacher in Early Adolescent Science, she pivoted into a tech career as a Senior Business Analyst working on Student Information Systems.

Caroline Hanson, Enrichment and Robotics Teacher, Aspen Middle School

In addition to teaching, Caroline serves as a member of the LEGO Education Advisory Panel, the Colorado State Tournament Planning Committee for *FIRST* LEGO League, and is a *FIRST* coach. The first season of *FIRST* LEGO League Caroline coached, the theme was Smart Move, and she could barely program a robot and focused instead on the project. As a former high school, English teacher and forensics coach, the project was a comfortable beginning, and students took charge of the robotics. That year her rookie team won the Innovative Project award at the state championship. Caroline attended the Carnegie Mellon Mindstorms workshop at the National Robotics and Engineering Center to develop her technical skills and since that inaugural year, the *FIRST* LEGO League program at the middle school has expanded to 11 teams as part of the curriculum in grades 5 – 8. The school sponsors the *FIRST* LEGO League Mountain Qualifier, and she coaches the high school *FIRST* Tech Challenge Team, the Robo Yetis. Her focus with *FIRST* LEGO League is to align components of the program to standards, so she emphasizes research and presentation skills to supplement core values and robotics. Last year, one AMS team, Trash and Trekreation was one of the top 20 finalists of the Global Innovation Award. This year another team was nominated for the Global Innovation Award and is busy filing for a provisional patent.

Evan Hochstein, FIRST Senior Mentor of Minnesota

Evan has been involved with *FIRST* for 10 years. He has filled a variety of volunteer and team roles, starting as a student leader on *FIRST* Robotics Competition Team 2470 from 2007 through 2010. Since graduating High School, Evan attended Dunwoody College of Technology for Electrical Engineering, interned at General Dynamics and BlackDog Robotics and now fills a role on the Applications Engineering Operations team at Stratasys. Evan has continued his involvement with *FIRST* as the lead technical mentor on *FIRST* Robotics Competition Team 2470 earning a Woodie Flowers Finalist award in 2012, coach of *FIRST* Tech Challenge Team 5943, mentor of *FIRST* LEGO League Team 2 and 4797, lead *FIRST* Technical Advisor for *FIRST* Tech Challenge in Minnesota and fills a role as *FIRST* Senior Mentor in Minnesota. *FIRST* Alumni rock!



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Christine Hoffer, Team Leader, FIRST Robotics Competition Team 5236

Christine is a parent/mentor with *FIRST* Robotics Competition Team 5236, Man O War Robotics from Cambridge, NY. She is committed to providing opportunities outside the classroom for students at Cambridge Central School (CCS) whose enrollment K-12 is 850. After being introduced to *FIRST* in 2014 by her son, she felt adamant that the fundamentals of *FIRST* should be available to the students. She works diligently to advance a team with little to no resources.

Jamee Luce, FIRST Robotics Competition Team Advocate, FIRST

Jamee joined *FIRST* in June 2015 as the *FIRST* Robotics Competition Team Advocate. 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 *FIRST* Robotics Competition Team 2648.

Amy Lynn Hunt, Director of People and Organizational Development, FIRST

Amy Lynn leads all the Human Resources, Talent Management and Organizational Development work for the organization. Prior to joining *FIRST*, Amy Lynn was a Manager in the Office of Human Capital at the District of Columbia (DC) Public Schools, where she managed the talent lifecycle for over 800 staff including recruitment, hiring, performance management, professional development and retention. While at DC Public Schools she also managed the Urban Education Leaders Internship Program (UELIP), a cohort style internship program that brought 60-90 interns to the school district each year to learn about education administration and become the next generation of transformational leaders. Prior to joining DC Public Schools, Amy Lynn was an Education Pioneer Fellow with Scholar Academies Charter Schools, worked at the Department of Education, and was a Surface Warfare Officer in the Navy for 6 years. She holds a Bachelor's degree in History from Vanderbilt University and a Master's in Public Policy from Johns Hopkins University.

Steve Hyer, FIRST National Advocacy Conference Founder

Steve founded the *FIRST* National Advocacy Conference in 2013. He has served as a mentor to Hall of Fame Team *FIRST* Robotics Competition Team 27. He has judged *FIRST* LEGO League, *FIRST* Robotics Competition, and currently serves as a Judge Advisor for *FIRST* Robotics Competition. Steve graduated from the University of Michigan and is currently the President of the Clarkston Community Schools Board of Education and he serves on the Michigan Association of School Boards Board of Directors. He is President and Founder of a website application development company, IGD Solutions Corporation. Steve is very passionate about Advocacy and has lead over 30 advocacy trips to Washington, DC for school board members, parents, administrators, and students over the last 15 years.



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Jamey Jacobs, Divisional Vice President, Global Product Development, Abbott Vascular

Jamey is currently the Divisional Vice President, Global Product Development at Abbott Vascular in Santa Clara, CA. Mr. Jacobs's experience spans over 25 years in the cardiovascular and cardiology device industry. He has extensive experience in the areas of research engineering, development engineering, project management, marketing, sales and R&D management. He previously held positions as Divisional Vice President & General Manager of Structural Heart, Divisional Vice President and General Manager of the Coronary Franchise, Divisional Vice President, R&D, Abbott Vascular Devices, R&D Director and Global Marketing Manager for Guidant. Mr. Jacobs has held a variety of other positions at Abbott Vascular Devices, Guidant, and Advanced Cardiovascular Systems. He has also held management roles in engineering, marketing, and sales for IVAC Corporation. Additionally, he has led the development and marketing of automatic drug titration systems for cardiovascular surgery patients, angioplasty guide wires, balloon catheters, vessel closure devices, coronary stents, and drug eluting stents. Mr. Jacobs earned his bachelor's degree in Systems Science Engineering from the University of California, San Diego.

Jeremiah Johnson, Design Engineer – Advanced Engineering, John Deere Global Crop Harvesting Product Development Center

Jeremiah graduated from Iowa State University with a Bachelor of Science and Master of Science in Agricultural Engineering. He joined John Deere in 2010 with the Technology Development team. In this role, he worked on developing new technologies involving sensors, controls, automation, and biomass harvesting techniques. Currently, he works on the Advanced Functional team focusing on field testing techniques, data analysis, and combine functional design.

Dr. Heidi Kattula, Executive Director of District and School Services, Oakland Intermediate School District, Oakland County, Michigan, FIRST LEGO League, Jr. Coach

Dr. Kattula holds one of the top instructional leader positions in Oakland County. She works collaboratively with 28 public school superintendents and 29 public school academies to support all facets of comprehensive school systems. Heidi's background includes being a former mathematics and computer science teacher; an elementary, middle and high school principal and a central office director of curriculum and instruction. Heidi has worked closely with Sarah over the last four years to develop growth and sustainability of the Bloomfield Hills robotics programs. She is also a *FIRST* LEGO League Jr. coach.



John Kelly, Regional Affiliate Manager, Aspirations in Computing

As an Aspirations Regional Affiliate Manager (RAM), John supports affiliates across the country to promote NCWIT Aspirations in Computing Awards. John has been a fierce advocate for social justice and equality, and has focused his professional career on organizing volunteers to achieve those goals. Prior to joining NCWIT, John worked as a volunteer coordinator for the Repeal Coalition, an immigration advocacy group that focused on repealing Arizona's harsh immigration law and promoting a sensible pathway to citizenship. John also worked as a volunteer coordinator for the Grand Canyon Trust where he recruited, trained, and organized volunteers to advocate for a ban on uranium mining in the Grand Canyon. In addition to working for NCWIT, John was elected to University of Colorado Boulder's Staff Council where he currently serves as Chairman of the Payroll, Retirement, Benefits, and Legislative Committee. John received a BS in political science and a BA in economics from Northern Arizona University. He resides in Boulder, Colorado where in addition to advocating for social justice and equality, he plays saxophone in a local funk band and rides his bike at least three times a day.

Kurtus Kahle, Mechanical Engineer, Clark Richardson & Biskup Consulting Engineers

Kurtus is a *FIRST* alum, and was a founding member on *FIRST* Robotics Competition Team 2521 out of Eugene, Oregon – the Robot Ninja Monkeys. During college, Kurt worked as a co-op at an engineering, procurement, and construction firm specializing in water and renewable energy projects. He graduated in 2013 from Washington University in St. Louis with degrees in Mechanical Engineering and Systems Science and Engineering, and a minor in Energy Engineering. Since graduation, Kurt has been a mechanical engineer at CRB, primarily working on the support systems (such as high purity water and cleanroom design) within pharmaceutical manufacturing facilities. He also co-leads the firm's sustainability team.

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

Kathie has been volunteering with *FIRST* since 2000. In 2004 she co-founded NEMO (Non-Engineering Mentor Organization). Kathie enjoys helping *FIRST* mentors find solutions to nontechnical challenges, and has facilitated numerous teambuilding sessions.

Ghassan Kridli, Parent Mentor FIRST Robotics Competition Team 2834

Ghassan is Professor and Associate Dean for Undergraduate Education at the College of Engineering and Computer Science, University of Michigan-Dearborn. He received his B.S. and M.S. in Mechanical Engineering from the University of Miami in 1986 and 1988, respectively, and his Ph.D. from the University of Missouri in 1997. Ghassan conducts research on the design and manufacture of sheet metal products of lightweight alloys. Ghassan's experience includes significant work in program assessment for continuous improvement and in curriculum development. His work involves developing strategies for student success as well as exploring effective pedagogical practices in engineering education. Ghassan is collaborating with other STEM faculty at UM-Dearborn to develop educational programs to prepare K-12 teachers to present engineering in an integrated STEM curriculum.



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Kevin Killian, Head Coach/Mechanical Mentor, *FIRST* Robotics Competition Team 1676, Pascack Pioneers and Founder, New Jersey Advocacy Conference

Kevin has been the Pascack Pi-oneers head coach since the 2008-2009 season and serves as the Lead Mechanical Engineering mentor. He earned a Bachelor's Degree in Mechanical Engineering from Massachusetts Institute of Technology, a Master's Degree in Mechanical Engineering from Columbia University and a Master of Business Administration from New York University. Kevin worked as an engineer, engineering manager, and Director of Operations during his 19-year engineering career, which included producing space-flight hardware. During this time, he was awarded seven U.S. Patents. Kevin has been a math teacher at Pascack Hills High School since 2003. He became a mentor/coach of the Pi-oneers at the team's inception in the 2004-2005 season. He instituted recruiting activities that have increased the team from a typical size of 40 members before he became Head Coach to 80-90 members since taking the helm. Additionally, Kevin led Team 1676 to significantly support the local middle school *FIRST* LEGO League Robotics competition, by instituting mentoring of the middle school teams plus hosting of the Bergen Brickfest N.J. *FIRST* LEGO League Qualifying Tournament.

Ashley Kolaya, Program Manager, TED-Ed

Ashley is a Program Manager for TED-Ed, TED's global youth and education initiative. Working with the students in the TED-Ed Clubs program, Ashley helps develop and share the next generation of ideas worth spreading. Prior to her joining TED, Ashley served as Co-Founder and Managing Partner of HumanMomentum, a leadership and team development consultancy, where she worked with teams at GE, Etsy, and NYU. Ashley received a Master's degree in Public Policy and Organizational Management at New York University.

Teresa Lanuza, Electrical Engineer, Clark Richardson & Biskup Consulting Engineers

Teresa has a Bachelor of Science in Electrical Engineering from Saint Louis University. She is 23 years old and originally from Nicaragua. She is fluent in both English and Spanish. Teresa has been working at CRB for almost two years, where she has worked on a variety of projects including pharmaceutical, and food and nutrition plants. She is a registered Engineer in Training, and she is working towards her Professional Engineer license.

Mark Lawrence, FIRST Robotics Competition Team 1816, Founder, Minnesota Advocacy Conference

Mark is in his 12th season mentoring *FIRST* Robotics Competition Team 1816, The Green Machine. He is Chairman of the MN *FIRST* Regional Planning Committee and oversaw the growth of Minnesota teams from 2 in 2006 to 208 today. Leading the effort to get the MN State High School League to adopt *FIRST* Robotics Competition as a varsity sport, the MSHSL/*FIRST* Championship is now in its 6th year. He is a 2015 Championship Woodie Flowers Award winner.



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Scott Libert, Founder, Kauai Labs; Software/Control System Mentor, *FIRST* Robotics Competition Team 2465 (KauaiBots); Control System Adviser

Scott is a 30-year veteran software/electrical engineer from Kauai, Hawaii with experience in broadcast television, missile defense and robotics industries. Scott founded Kauai Labs in 2012 to transition leading-edge industry technology into products for use in *FIRST*. Under Scott's direction, Kauai Labs has developed the nav6, navX-MXP and navX-Micro Robotics Navigation Sensors now in use by many *FIRST* Robotics Competition and *FIRST* Tech Challenge teams and is actively developing next-generation products.

Ammi Ludwick, Program Director, Aspirations in Computing Recognitions

Ammi is the Recognitions Program Director for the Aspirations in Computing (AiC) Program of the National Center for Women and IT. Ammi is responsible for the direction, maintenance and implementation of all the awards and recognitions AiC offers in the K-20 sphere. She works closely with the Regional Affiliate Managers, the AiC Community Manager and the AspireIT K-12 Outreach Program team to develop ways to honor the growing Aspirations in Computing and Educator Communities. With 75 regional Affiliates, 10,000 technically inclined women and 3,500 adults.

Luke Manier, Automation Professional

Luke has spent 15 years in the Automation Industry. He graduated from the University of Missouri-Columbia with a degree in Mechanical Engineering. During his career, he has held roles including Industry Sales Manager, Process Automation Business Development Manager, and Technical Sales. Luke is passionate about helping manufacturers leverage automation and information to improve productivity, innovate, improve quality, and increase safety.

Jennifer Martin, Educator, Chesterfield Day School

Jennifer is a professional educator who advocates and consults on STEM and Makerspace best practices with students of all ages. She has coached all 4 levels of *FIRST* and has been involved with the St. Charles and St. Louis Missouri STEM communities since 2010.

Greg McKaskle, Chief Software Architect, National Instruments

Greg is a seasoned LabVIEW *FIRST* Robotics Competition 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. He currently holds the title of Chief Software Architect. Greg's robotics expertise covers a broad range of topics including vision, communications, and general programming.

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

As a member of the *FIRST* Robotics Competition 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 *FIRST* Robotics Competition Team 190 since 2001.



Kate Nolan, Materials & Process Engineer, Boeing

Kate first joined the Society of Women Engineers (SWE) in 2009, and quickly discovered a love for both SWE and STEM outreach to K-12 students and their adult influencers. She is currently SWE's Outreach Committee Chair-Elect, and she also leads SWE's Wow! Innovation Challenge (a competition for SWE sections to be recognized for their STEM outreach efforts) and serves as SWE's Outreach Awards Coordinator. Kate graduated from the University of Missouri in 2013 with a degree in chemical engineering, and works at Boeing in St. Louis as a materials & process engineer.

Jennifer O'Callaghan, FIRST LEGO League Community Engagement Manager, FIRST

Jen has been the *FIRST* LEGO League Community Engagement Manager since 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.

Stefan Op de Beek, Embedded Electronics Hobbyist, and Coach of *FIRST* LEGO League Team 30377, The Lego Hackerz

Stefan Op de Beek is an enthusiast hobbyist who is this year a *FIRST* LEGO League coach for the fourth time. As a hobbyist, his focus is on the development of embedded hardware and software. This year's *FIRST* LEGO League team used in its project solution an IR sensor made by Panasonic. To let the team members using this sensor he started developing special blocks for the LEGO Mindstorms EV3 graphical language to integrate the sensor in the programming environment already well understood by the team members.

Jen Owen, Founder, e-NABLE

Jen is the founder of <u>enablingthefuture.org</u>, a website dedicated to sharing the stories, resources, tutorials, history and open-source files of the global volunteer e-NABLE Community. Her husband Ivan Owen, is the co-designer of the first 3D printed e-NABLE hand that was created for a young boy in South Africa who was born missing fingers. To date, it is estimated that approximately 2500 free 3D printed hands and arms have been delivered to children and adults in over 60 countries thanks to the global e-NABLE Community of digital humanitarians, who are using their home desktop 3D printers to make a difference in the lives of others. Jen runs the enablingthefuture.org website, helps to create educational tools for schools who are using e-NABLE in their STEM based learning programs, documents the stories of the global community and works behind the scenes to make sure that e-NABLE continues to inspire others to use their imaginations and ideas to change the world.

Elliott Pennington, Automation Professional

Elliott Pennington has spent 17 years in the Automation Industry. He graduated from Missouri University of Science & Technology (formerly UMR) with BS in Electrical Engineering. During his career, he has held roles including Technical Sales, Proposal Leader, Global Technical Consultant, Field Service, Systems Integration, and Plant Staff Engineer. Elliott strives for new opportunities to leverage the power of automation to meet business objectives and drive economic growth.



Steven Pflantz, President, International Society of Automation

Steve has over 30 years of experience in industrial automation. His work experience has covered a wide range of industries; grain milling, chemicals, pulp & paper, amusement park and entertainment venues, food & beverage, and pharmaceutical manufacturing. He is a graduate of the Missouri University of Science and Technology with a Bachelor of Science degree in Electrical Engineering. He is a licensed professional engineer in 14 states. Steve is a member of the International Society of Automation (ISA), a professional society that offers continuing training and education for Automation Professionals worldwide. His present position is Society President 2017. He also works with the Automation Federation (AF), which is a joint organization with ISA and over 20 other professional organizations interested in promoting Automation careers and the Automation profession. The Automation Federation is a *FIRST* Alliance Partner.

Chris Picone, Mechanical Engineer / Project Manager, Sea Box Inc

Chris is a Mechanical Engineer who has been mentoring *FIRST* Robotics Competition teams for the past 8 seasons. He has served as the lead design mentor and drive coach for 228 GUS Robotics from Meriden, CT. Previously, he was the lead prototyping mentor of 2791 Shaker Robotics from Latham, NY. He graduated from Rensselaer Polytechnic Institute in 2015 with a BSME, and currently works at Sea Box as a Mechanical Engineer/Project Manager.

Sarah Piper, Operations, Clinton River Medical, Parent Mentor of FIRST Robotics Competition Team 2834 Bionic Black Hawks, Bloomfield Hills High School

In her current role, Sarah develops effective and efficient operational processes and systems to support customer satisfaction, regulatory compliance, operational quality and productivity. Prior to her role at Clinton River Medical, Sarah was a Consulting Manager with Arthur Andersen and later served as the Director of Operations for Marketing Displays International. Sarah has coached *FIRST* LEGO League and *FIRST* Tech Challenge teams and is now a mentor with the *FIRST* Robotics Competition Team 2834 Bloomfield Hills High School Bionic Black Hawks where she coordinates the *FIRST* K-8 programs for the Bloomfield Hills school district.

Andrew Raine, Manager, Fiat Chrysler Automobiles, Coach FIRST Robotics Competition Team 2834

Andy has been a part of *FIRST* for 7 years and started as a *FIRST* LEGO League coach. He is presently in his third year as Coach for the Bloomfield Hills High School Bionic Black Hawks *FIRST* Robotics Competition Team 2834. He started on Team 2834 as a scouting mentor. He co-manages the *FIRST* program for Bloomfield Hills Schools with over 350 participants from FIRST LEGO League Jr. through the high school team. Andy has an 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: team2834.com



ST. LOUIS

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. 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 recently completed courses through the Kaplan University Higher Ed College Administration and Leadership program. Melody 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, an adjunct Science instructor for Kaplan University, and serves as the Wisconsin *FIRST* Regional Director.

David Rush, MIT graduate, Technology Professional, 12-time Guinness World Record Setter

David is a juggler and a technology professional. He has an electrical engineering degree from MIT, an MBA from BSU and works at the Boise-based technology company: Cradlepoint. At MIT, he won best undergraduate lab of the year. He's also a two-time winner of the MIT-wide Talent show, and a 2-time finalist of Idaho's Got talent. He's set 12 Guinness World Records promoting Science, Technology, Engineering and Math through talks to students and DavidRush4STEM.com. He is the world's fastest juggler, the world's slowest juggler and has the record for longest duration blindfolded juggling.

Jordan Sayegh, Community Service Coordinator, Prosthetic Hand Project Lead

Jordan is a Junior from Rochester, New York, and is a member of *FIRST* Robotics Competition Team 1511, Rolling Thunder. Aside from leading the prosthetic hand project on his team, he is also a member of the Mechanical, Strategy, and Leadership sub-teams, while co-founding and currently leading the Community Service sub-team.

Jayasurya Sridharan, Scouting Captain, FIRST Robotics Competition Team 4096 "CtrI-Z"

A member for 6 years and avid *FIRSTer*, Jay Sridharan has spent most of his *FIRST* Robotics Competition career working with scouting systems and data analysis. Jay has a passion for everything scouting has to offer and hopes to be able to help others create their own systems. He loves the exciting challenges that come along with *FIRST* and plans on keeping in touch with the *FIRST* community long after his high school years.

Dianne Stevens, Senior Content Developer, ARRIS, Troop Leader and FIRST LEGO League Coach

Girl Scout Troop 1987 out of Gardner, Kansas, has been together for five years, led by Dianne. This year as 5th graders, they formed a *FIRST* LEGO League team.



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Jack Teadore, Coach/Programming and Electronics Mentor, *FIRST* Robotics Competition Team 1676, Pascack Pi-oneers and Founder, New Jersey Advocacy Conference

Jack has been a mentor with the Pascack Pi-oneers for the past nine years. He received his Master's Degree from NYU Polytechnic University in Computer Science and a graduate certificate in Computer Security from Stevens Institute of Technology. He brings with him a knowledge of electronics and programming. Jack has worked for several Internet companies designing and constructing communications systems and today has his own consulting company. In his role as the Control Systems Mentor, he teaches team members advanced methods for programming the robot along with the use of sensors to enable the robot to accomplish its tasks. He also co- coaches a 3-time New Jersey State Championship *FIRST* LEGO League Team and during that time the team won the *FIRST* LEGO League World Championship Research/Project Award. Jack has also previously taught robotics at the Gifted Child Society in Allendale NJ.

Aaron Thune, Alumni & Student, FIRST Robotics Competition Team 1736

Aaron is a recently-graduated student of *FIRST* Robotics Competition team 1736. After writing software for the team for three years, he is now studying Computer Engineering at Iowa State University. Aaron is a self-proclaimed Jeopardy! enthusiast.

Sydney Walker, Student Lead Programmer, FIRST Robotics Competition Team 20

Sydney is a sophomore at Shenendehowa High School. She is a gifted programmer and specializes in peer to peer programming training with students from teams whose schools may not offer programming courses.

Rachel Wilk, Clinical Engineer, Manchester VA Medical Center

Rachel is an alumna member of Alpha Omega Epsilon, a professional and social sorority composed of female engineering and technical science students and alumnae that strives for scholarship and academic achievement as well as a friendly and warm atmosphere where integrity, character, and self-confidence can flourish. She is also a Clinical Engineer with the Veterans Health Administration, responsible for the life cycle management of medical devices.

Jordan Yamada, Applications Engineer, National Instruments

Jordan has worked at National Instruments for just over a year and became involved with the *FIRST* Robotics Competition support team. His history with *FIRST* and NI began in 2009 when he first joined a *FIRST* Robotics Competition team in high school and first started developing with the cRIO based control system. Over this season he participated in NI's *FIRST* robot in three days team. In addition, he helped man the phones for the *FIRST* Robotics Competition support line during the build season.



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Jim Zondag, Application Development Manager, Uconnect System for Fiat Chrysler Automotive, LLC and Team Leader for *FIRST* Robotics Competition Team 33, The Killer Bees

Jim has been the team leader of *FIRST* Robotics Competition Team 33, the Killer Bees for the last 20 years. He brings a wealth of experience presenting technical and business topics to a wide variety of audiences. He is a founding member and current board member of *FIRST* in Michigan. Trained as an electrical engineer, he is the Application Development Manager for Uconnect System for Fiat Chrysler Automotive, LLC.