

EPICS Team

Fall 2021



EPICS Staff

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Jared Schoepf, PhD.

Director

Jared Schoepf is the Director of Engineering Projects in Community Service (EPICS) at Arizona State University. Jared received his PhD in Chemical Engineering at ASU, developing a tiered approach to rapidly detect nanomaterials in the environment and consumer products. Jared has been a lecturer of EPICS since 2017, mentoring over 200 teams. Currently he teaches introduction to engineering, EPICS, and introduction to chemical engineering processes. He has founded 2 starts ups and has 3 patents for water purification, removal of trash from storm water, and Dial's antibacterial liquid hand soap formula. He has a passion for teaching and mentoring students, aiming to help each student achieve their goals. In his free time Jared loves to go hiking, backpacking, and snowboarding.

Steven Osburn

Lecturer



BIO

Keberle

Lecturer



BIO

Courtney Langerud

Coordinator



Courtney Langerud is a graduate student at Arizona State University pursuing a Masters in Justice Studies and a Masters in Social and Cultural Pedagogy. Courtney works as a Coordinator for the Fulton Schools of Engineering Student Success and Engagement team where she focuses on EPICS, Engineering Projects in Community Service; an engineering design-based service learning and social entrepreneurship program. Courtney graduated in December 2019 as a member of the Next Generation Service Corps with a Bachelors in Global Health, minor in Civic and Economic Thought and Leadership, and a certificate in Cross Sector Collaboration. She has spent her undergraduate career studying in a global context through study abroad and research in Nicaragua, India, New Zealand, Ethiopia, Rwanda, Kenya, and Uganda.

EPICS

Industry Mentors

Fall 2021





Armando Licon

Armando Licon is a Product Development Engineer for Hunter Douglas Window Blinds. Previously he worked in the automotive industry as a test engineer for Volkswagen Automotive Group. He received his Bachelors in Mechanical Engineering from ASU, and was captain of the SAE Aero team. In his free time Armando likes swimming, backpacking, and smoking meat.

Barbara Shirley



Barbara is a retired computer professional with over 4 decades experience that spans technical, project management, research, business development, and teaching in National Laboratories, Silicon Valley, Federal Government, universities and the military. She received her BA in Physics and PhD in Psychometrics from the University of California, Berkeley, and attended California College of Arts and Crafts for 2 years pursing her second passion for art and design.

She began her career programming the first computers at Lawrence Berkeley National Laboratory. Her last technical/management position was Director of Information Resource Management for the Department of Energy's program tasked with siting a repository for the disposal of high-level nuclear waste from power reactors. She was responsible for computer and telecommunications technology, as well as the design and development of a large interactive system to support the licensing of the repository.

Teaching and mentoring threaded their way through her career. Barbara was an Adjunct Professor in the Master of Information Systems program at George Washington University and a Professor at the National Defense University teaching high-ranking military officers. She mentored Burmese refugees in Thailand seeking educational support through a small foundation, and served as a docent and mentor at 2 art and architecture museums.

Ben Lewis



Ben is a self taught engineer with a background in industrial design and a masters in design research and interdisciplinary collaboration. He co-owns and operates a niche automotive aftermarket startup, is a local installation artist with his life and business partner, teaches business development through physical prototyping courses, and specializes in locally sourcing small production runs for new products, lowering the barriers to the size of the community a product needs to serve. Ben continues to be dedicated to dismantling the systems in both his psyche and his community that systemically disadvantage and harm. Ben is actively pursuing opportunities to electrify our existing vehicle fleet and would be eager to discuss opportunities to combine efforts.

Carmen Alderton



Carmen Alderton is a Project Engineer at Graycor Construction in Phoenix, AZ, Academic Associate, and EPICS Alumnus. She has experience in project management including fast track scheduling

, budgeting, estimating, material procurement, risk management, and subcontractor coordination. Carmen specializes in the logistics and distribution construction sector, and is currently building a 1.2 million square-foot manufacturing facility in Glendale, AZ. During her time at ASU, she served as President of Advancing Women in Construction (AWIC) and Chi Epsilon, the Civil Engineering Honor Society. Carmen graduated with a BA in Interdisciplinary Studies with Concentrations in Construction Management and Business from ASU in 2019. In her free time, she enjoys hiking, wine tasting, and cooking.

Danny Kneer

PhD., CPA, CFE blah blah blah (licenses inactive; but he's NOT!)



As an undergraduate, Danny “borrowed the code” the College of Businesses’ computer simulation game. Amazingly, his team had the highest score in university history! Upon revealing his computer crime (not his first, that was at age 14), the class professor said...wait for it...” WOW, COMPUTER CRIME, THAT COULD BE A CAREER”. And thus, it happened. (Danny also owned every seat to Economics 51, but that’s another story.)

After a consulting career, in San Francisco (and hanging around Berkeley at night), he earned a Ph.D., with a heavy dose of advanced auditing, hard-core computer science and stat. Danny spent 17 years on the faculty of...ASU! (Yea!) HE taught in the College of Business (COB) and founded the Computer Audit Club of Phoenix. He’s most proud of being the Teacher of the Year of the entire COB, and views teaching as an honor and a privilege. Being sorta out-of-the-box (for the 1980’s) he didn’t give finals (even to undergrads): he had them “use Phoenix As a lab (sound familiar?), get a client, and re-design their computer system/computer security. So, he knows how to assist students start...and complete “projects”. He believes in collaborative education: you’ll become the teacher.

After 17 years, he “missed the action” and founded a global advisory company, serving six continents. Danny is a “builder” and designed/develop/lead teacher for internal “Academies/Universities” for several of the Fortune Top 100. He has worked with several major federal agencies (some that don’t even exist (yikes!)and state agencies. Always wanting to advance the profession, he was the Director of Research, for the International Association of Computer Auditors, and developed and ran a Financial Services “Advanced Analytics and Fraud Prevention School” in Milan, Italy. Danny’s interests include 1) Computer Crime/Security, 2) Advanced Analytics, 3) Statistical Sampling and...4) his first love is...engineering!

Doug Toy



Doug Toy has a Bachelor's degree in Civil Engineering (University of Arizona), Certified Public Manager (Arizona State University), and Master in Business Administration (University of Phoenix) and is a registered professional civil engineer in California and Arizona.

Doug has over 45-years in both the public and private sector. He has experience in planning, design, permitting, and operations in water resource management, water infrastructure, ground water wells, wastewater systems and reclaimed water facilities. Doug has developed water policy at both the state and local levels. He has presented papers on canal operations, dam safety, reclaimed water recharge, and water resource management. Doug is currently employed by the Town of Queen Creek.

Janet Spirer



Janet Spirer, Ph.D. has followed two different, yet complimentary paths. First, as a B-School Professor she taught marketing, sales, and business strategy courses to undergraduate and graduate students. She also co-founded Sales Momentum, LLC in 2000, a consulting practice focusing on sales productivity and marketing for Fortune 1000 companies worldwide. Sales Momentum clients cross industries and include: UPS, Boston Scientific, Smith & Nephew, Textron, and The Center for Creative Leadership.

Janet received her Ph.D. from The Ohio State University, an M.P.A. from The University of Texas at Austin, and a B.A. in Economics from Brooklyn College. She currently holds the appointment of Professor Emeritus at Marymount University.

John Velotta

PE



John Velotta is a retired electrical engineer, utility manager, and United States Navy Captain. He is currently a life long learner. His career started as an officer in the United States Navy nuclear submarine service and spanned over four decades of electric utility and military leadership and management. Areas of expertise include nuclear power plant engineering, information technology, communications, operations, maintenance, training, start-up, and project management. He is a strong believer in training, career development, mentorship, innovation + entrepreneurship within large organizations, and the need to establish a strong Code to Live By early in one's career. These beliefs evolved from his counseling of young military enlisted and officer personnel. His beliefs were further refined from extensive experience in innovation, training and development of nuclear power plant personnel and organizational succession planning. John served as a Maintenance Manager and Training Director at the Palo Verde Nuclear Generating Station. He was the project manager for three nuclear power plant simulators and three modern gas turbine and combined cycle power plants. His assignments included the start-up of Turkey Point and St. Lucie nuclear power plants for Florida Power and Light Company. Navy Engineering Duty Officer assignments involved ship repair, upgrade and overhaul. John Velotta holds a BS degree in Electrical Engineering and Computer Science from the University of California, Berkeley and an MBA from the University of Miami, Coral Gables, FL. He has served on a number of nuclear power industry groups and standards committees and has authored technical and training papers for the commercial power industry

Joyce Weiner



Joyce Weiner is a Principal AI Engineer with Intel Corporation. She has over 25 years of experience in the semiconductor industry, having worked in fabrication, assembly and test, and design. Her area of technical expertise is data science and using data to drive efficiency. Joyce is a black belt in Lean Six Sigma. Her book, "Why AI/Data Science Projects Fail: How to Avoid Project Pitfalls" was published in January 2021. She has a BS in Physics from Rensselaer Polytechnic Institute and an MS in Optical Sciences from the University of Arizona.



Judy Amanor-Boadu, PhD.

Judy Amanor-Boadu, PhD. is an electrical engineer with 10+ years experiences in the semiconductor, PC, and battery charging industries. She currently holds the position of senior analog engineer at Intel Corporation where she focuses on power delivery modeling and characterization of Intel data center products. She also provides implementation guidelines, performs feasibilities studies, design verification, and sign offs of current and future generations of Xeon processors and accelerators.

She is strong believer in the power of mentorship and the overall career development of people. During her doctoral studies at Texas A&M University, she served as the mentor for the first all-female autonomous underwater vehicle (AUV) team to participate in the AUVSI Robosub competition, where she helped team members develop their practical engineering, project management, and budgeting skills. She also served as an advisor for the SAE Supermileage and Vex-U teams and cofounded several student organizations, serving as a career resource for both undergraduates and graduate students during her time at Texas A&M University.

She served as the FY16 National Graduate Society of Women Engineers (SWE) webinar coordinator and Texas A&M University SWE mentorship coordinator from 2014 to 2016. During her tenure, she developed programs for both undergraduate and graduate students concerning career paths and job interviews. She also co-organized the first IEEE African workshop on Circuits and Systems in Ghana in 2017, and sits on the IEEE Instrumentation and Measurement International Instrumentation and Measurement Technology 2020 conference committee. Dr. Amanor-Boadu regularly serves as a reviewer for MDPI journals. She is currently piloting a robotics and entrepreneurship program for middles schoolers in Accra, Ghana.

Her current and past research activities include the development of lithium ion battery charging algorithms, energy harvesting, specifically solar energy harvesting systems, and wireless charging.

Judy Amanor-Boadu holds Bachelor and Masters of Science, and doctoral degrees in electrical engineering.

Paul Balch, PE



Paul Balch, PE, is a Project Manager at Dibble. He is a registered professional civil engineer with over 22 years of experience in designing freeways, grade separated interchanges, and city street improvement projects. He has worked on over 200 transportation infrastructure projects, totaling 500 miles of roadway improvements. For the past six years, Paul has served as an Academic Associate at ASU in the Engineering Projects in Community Service (EPICS) program and as a Faculty Associate at ASU for Highway Geometric Design courses.



Rubayat Mahmud

Dr. Rubayat Mahmud is a Regional Sales Director with HCL Technology. Rubayat has a 16+ years of professional experience. He is a motivational and approachable sales and business development leader with extensive track record of success in Hi-tech, Semiconductor and Emerging Technology areas. He is a business savvy person with a strong technical background who has the vision of relationships and partnerships required to scale in the Hi-tech, Semiconductor and Emerging Technology verticals. Rubayat has deep understanding of the overall technology value chain and has experiences in interacting with customers and partners across the Engineering and R&D value chain. Rubayat is a respected business strategist and change maker with sound judgment who creates and grows new revenue streams by combining deep technical knowledge and exceptional communications and relationship skills to meet the needs of internal and external customers.

Rubayat has extensive experience in multiple leadership roles in the Hi-Tech and Semiconductor verticals. Before joining HCL, he was serving as Director of Strategic Services at a Management Consulting Firm called MSS Business Transformation Advisory (MSSBTA). At MSSBTA, Rubayat was responsible for driving strategic growth in the Hi-Tech vertical. Before MSS, Rubayat worked as Director of Sales and Business Development at QuEST Global Services. At QuEST, Rubayat drove Sales and Business Development with marquee accounts like Intel, Dell, Infineon etc. Before QuEST Rubayat spent 11 years with Intel in multiple leadership roles. He started his journey at Intel as a Senior Process Engineer, Litho, PTD in Portland, OR. In subsequent years, he worked in CQN, ATTD, Technology Integration and IOTG groups in various technical and business-related roles.

Rubayat has an MBA from W P Carey School of Business at ASU. He has a PhD in Chemical Engineering from Texas A&M and a MSc. In Chemical Engineering from Texas Tech University.

Shaun Wootten



Shaun Wootten is the Director of Innovation and Design for Aesthetics Biomedical, Inc here in the Phoenix Valley and also serves as a Venture Scout with Sweater Ventures. Shaun also is a NAE Grand Challenge Scholar Alum from ASU majoring in Biomedical Engineering and Biochemistry with a minor in Business. Shaun has been published in numerous scientific publications and has been awarded 2 issued patents. Shaun specializes in startups, particularly biotech and medtech, and has an emphasis on product development and product overall. This will be Shaun's first semester serving as an AA for EPICS.

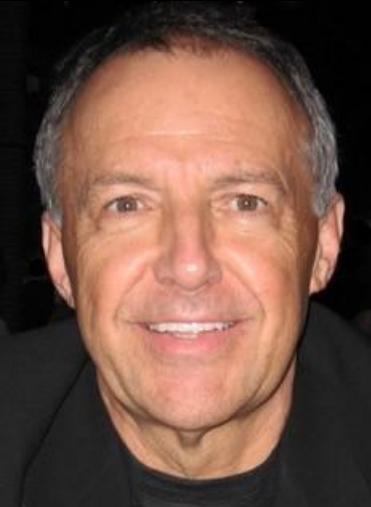
Teja Sathi



Teja Sathi is a Mechanical Engineer with 3 years of industry experience in aerospace cables and medical device industries with most of that time spent in new product development. She is currently an Engineer at W. L. Gore and Associates and has experience with product design, manufacturing support, simulated clinical evaluations, and process improvements.

Teja graduated from Virginia Tech with a B.S. in Mechanical Engineering and minors in Computer Science and Spanish. She was manufacturing subteam lead for Hyperloop at Virginia Tech and helped advance the team to the pod competition at SpaceX in 2019. Teja has an academic interest in acoustics and supported Rolls Royce acoustic, nonintrusive thrust measurement research at the Virginia Tech Advanced Power and Propulsion Lab.

Teja is passionate about mentoring and is currently a mentor at New Pathways for Youth here in the Valley. In her free time, you can find Teja caring for her houseplants, outdoors adventuring, and crewing for hot air balloon flights.



Tom Zender

Tom Zender is a Phoenix-based CEO Mentor, Business Coach, and Leadership Developer- working with the CEO's of large, medium and small businesses. He held leadership roles at General Electric, Honeywell, small-midsize companies, nonprofits, and startups. Tom has served on NASDAQ and Toronto Stock Exchange listed corporate boards. He is the author of seven books about business leadership, and writes a column about leadership for the Phoenix Business Journal. Tom mentors startup businesses in the ASU Venture Devils program and global community projects in the ASU EPICS program. He conducts workshops on leadership and other topics in a variety of venues. Tom holds a BA in Business Administration from Ottawa University, with emphasis on leadership, marketing, and software engineering. He developed the design software for the nose section of the Lockheed SR-71 Blackbird Mach 3 aircraft.

EPICS UGTAS

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Abtin Pourdehghan

Abtin is a senior Mechanical Engineering student finishing his final semester of his BSE. Although this will be his first semester as an EPIC's UGTA, Abtin is excited to share the knowledge he has acquired as a part of the EPIC's program for the past three semesters. Abtin has been a part of the Tucson Zoo Heating and Cooling Bed team and hopes to lead the team with new members during the Fall semester. He recently completed an internship as a Reliability Maintenance Engineer with the Pinto Valley Mining Company in Globe, Arizona where he gained real world experience, and was able to solidify major principles and concepts he had learned over the fast four years. Outside of engineering, Abtin loves to be outdoors, and travels to California to visit his family (where he hopes to move after graduation).

Jalen Goode



Jalen Goode is a junior in the Ira A. Fulton School of Engineering, pursuing a B.S.E. in Mechanical Engineering. He has been on multiple EPICS teams during his undergraduate career, imagining how growing food would look on a lunar colony, and designing a smart watering system for farmers in Da Nang, Vietnam. Jalen is also a part of the Ulaanbaatar Air Quality team this semester, hoping to improve the health of Mongolian households. Currently in his first semester as an EPICS UGTA, he hopes to learn from this new perspective, as well as help other teams complete their project goals.



Alison Fahy

Alison Fahy is a senior in Barrett, the Honors College, studying biomedical engineering. She is passionate about community service and designing accessible solutions to engineering problems, which is what drew her to the EPICS program. She spent two semesters as an EPICS team lead, designing a mobile application to foster mental health and resilience in Hopi youth. Outside of EPICS she has experience in biomedical product design, technical and market research, and project management. She also loves trying new foods and spending time with her two dogs, whom she rescued this year. She is excited to meet other driven engineering students, and give back to the program that has played such a major role in her personal and professional development.

Krissian Hargreaves



BIO

Lilli Offenberger



At Arizona State University, Lilli Offenberger is a student studying biomedical engineering (BME) in the Ira A. Fulton Schools of Engineering. She was drawn to BME due to the mix of the medical and engineering field combined into one. Her ultimate goal is to create 3D printed artificial organs and organ parts to combat the growing issue of people dying waiting for an organ transplant. Lilli has been a part of the Fosters AZ Project within the EPICS program and has continued to delve into the ASU community through various clubs such as SASE, GCSP, EPIC Movement, and other such clubs. One of her main objectives is to help those in her community thrive via volunteering with children, being a part of EPICS, and improving current health solutions to improve society.

Michael Li



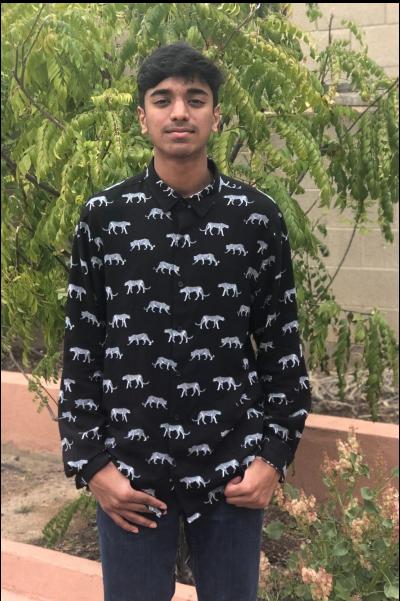
Michael Li is a junior studying in Biomedical Engineering with a minor in Physics. Michael has been a experienced EPICS team lead for the past 3 semesters, working on the 33 Buckets chlorine injection team. Additionally, he is the CTO of Arceate Health Innovation which focuses on design and development of disease related products. Given his engineering and business experience, he has curated a wide network of connections, such as the Clinton Global Initiative and Ballard Spahr LLP. He is looking forward to helping all students to succeed in their EPICS program and build their necessary skills to become an accomplished engineer.

Nicholas Weis



Nicholas Weis is a Civil Engineering major at Arizona State University and has a minor in urban planning. Nicholas is very involved in student organizations on campus, including the D&D club and serving as the Treasurer for the Student Planning Association. In his spare time, Nicholas enjoys doing Jiu Jitsu.

Rishik Kolli



Rishik Kolli is a sophomore majoring in Computer Science with a minor in Data Science at Ira A. Fulton School of Engineering. Rishik has completed two semesters in EPICS as a member of the Clarkdale Internet Infrastructure team, leading the team to the finish line during his second semester as the project lead. Outside of EPICS, Rishik is a member of the Sunhacks marketing and tech team and is currently working on putting together a hackathon on October 1st, 2021. He is also a member of the Grand Challenges Scholars Program, a program that tackles problems that our generation faces in fields of Security, Health, Sustainability, and Joy of Living. He is excited to be a part of such a rewarding program and meet other students who share a similar passion for EPICS.

Sam Reid



Sam is a second year electrical engineering major from Cincinnati, Ohio. He is in his third semester as the team lead of the Paradise Valley Hydroponics EPICS project and is an avid rower and backpacker. With eight years of experience in general contracting, he is confident in his ability to help EPICS teams with planning, prototyping and construction of their projects.



Vinesh Mani

Vinesh Mani is a Sophomore at the Ira A. Fulton Schools of Engineering and Barrett, The Honors College at Arizona State University, majoring in Electrical Engineering. He is a Secretary in the IEEE Student Council, served as a peer mentor in General Chemistry for Engineers, and has completed one semester of EPICS. His latest project involved designing an industrial Parental Circuit Board for a concise and complex photonic device. Vinesh enjoys taking on many responsibilities and facing challenges head on; exhibiting characteristics of a Go-Getter. He also loves assisting peers and consciously tries to provide meaningful support that facilitates creativity and generates value.

Zachary Isaac



Zachary Isaac is a senior pursuing a Bachelor of Science in Aerospace Engineering, with a concentration in Aeronautics. He has a passion for space, sustainability, exploration, and building things that move quickly. His history in theatre and performance have taught him the importance of teamwork, communication, and humanity which he always keeps at the center of his engineering work. For the past two semesters he has been involved with the Heat Resilience Challenge for Mobile Homes Team in the EPICS Program. Now, he's excited to team up with students as an EPICS mentor.

EPICS Subject Matter Champions

Fall 2021



Ravi Tiwari



Originally from India, Ravi Tiwari is a sophomore in Ira A. Fulton Schools of Engineering at Arizona State University, pursuing a degree in Computer Science. He has been part of the EPICS program, during which he worked in the Dhaka Waste Management project. He can adapt to different cultures quickly and has a passion for solving real-life issues using engineering methods. As a member of the Student Advisory Board, Ravi will exchange ideas, provide feedback and suggestions to teams, and develop a synergy between team members to achieve the goals."

Mark Bartolome



Mark Bartolome is an accomplished combat medic in the Arizona National Guard. Through his medical military training, Mark is ACLS and PALS certified and can provide pre-hospital care in urban, wilderness, and combat environments. In 2020 and 2021, Mark served with the Task Force Medical Covid-19 Response team to test and vaccinate many people in the Phoenix Metropolitan area and in various Indian Reservations around Arizona. Mark also works as a clinical research assistant at the Arizona Research Center, collecting data and assessing patients undergoing investigational medications for clinical trials.