Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## FINALIST TEAM BIOS

### BERGEN COMMUNITY COLLEGE, NJ

### PROJECT: POP-UP HYDROPONIC FARMS

**DEREK GONZALEZ** is a second-year chemistry student at Bergen Community College whose studies sit at the intersection of chemistry, engineering, and civic engagement. As a STEM Student Scholar, he has helped launch hydroponic community gardens that supplied Bergen's on-campus food pantry. He is currently interning at the New Jersey Institute of Technology, examining nanoparticle synthesis and drug-delivery strategies using techniques such as nanoparticle-tracking analysis and electrohydrodynamic co-jetting. Guided by curiosity and a belief in science's civic value, Derek continues to seek opportunities that foster both professional and personal growth.

**ESTRELLA LUNA** is a biology major at Bergen Community College. Over the course of her time at Bergen, she was a NextGen scholar and participated in many clubs and activities such as the 4-H Club and STEM Student Scholars. With plans of pursuing a bachelor's degree in biology, her overall goal is to obtain a doctorate degree in pharmacy. She also enjoys plant science and agriculture. In the summer of 2025, she will be working with Rutgers-Newark in a bodega project studying supply chain management and agriculture. While Estrella has a long way to go to complete her goal of being a pharmacist, she wants to continue to explore many avenues of science and further her skills in research and innovation.

**LISANDRO MARTINEZ** is a student at Bergen Community College (BCC), where he earned an associate's degree with honors in engineering science. He served as treasurer of the Honors Associations for the Judith K. Winn School of Honors for two consecutive years. He is a member of Phi Theta Kappa (PTK) and of the Student STEM Scholars Program (3SP) at BCC. As a peer tutor in math and sciences at BCC, he is dedicated to supporting student academic success. In the summer of 2024, he completed a research internship at the New Jersey Institute of Technology (NJIT), where he gained experience in fabricating and testing a novel field-effect transistor (FET)-based electronic sensor for PFAS detection in water. Now concluding his journey at BCC, he's pursuing a bachelor's degree in mechanical engineering. He is proud to represent BCC alongside his peers and mentor at the CCIC, where they will present their community-focused project.

**ALEJANDRO OLARTE** is a mechanical engineering student who builds practical solutions for his community. For this project he designs simple hydroponic "stacks" made from recycled shipping pallets and PVC pipe. These units slide into empty shops and warehouses to create pop-up farms that supply fresh produce to neighborhoods without grocery stores. Alejandro models each frame in CAD, sets up the lights and fans, and makes sure every part clicks together quickly and inexpensively. He also mentors local students, showing how basic tools and teamwork can turn unused space into healthy food.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

**P.J. RICATTO** (Team Mentor) is a Professor of Chemistry and faculty leader at the Bergen Community College STEM Student Research Center. Dr Ricatto's research interests include finding sustainable engineering solutions to food, water, energy, and waste management concerns in our community. Dr. Ricatto currently has students working on hydroponic, composting, and electric vehicle (EV) research projects on campus as well as internships at NJIT, Rutgers, and Volvo USA.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## COALINGA COLLEGE, CA

### PROJECT: THE DREAM TEAM – BURN CARE INNOVATION

**EDWARD CABRERA** is pursuing an AS degree in Liberal Arts–Math & Science at Coalinga College (CC) and is a regular participant in many campus events. Additionally, he is a well-known member of the MESA (Math, Engineering, Science, and Achievement) and PUENTE programs at Coalinga College and is engaged with their activities and field trips. Currently, he serves as the treasurer of the PUENTE Club and is a tutor at the CC library, where he helps with chemistry, mathematics, and more. Edward has been recognized for his academic achievements by receiving a President's Scholarship. In the near future, he hopes to continue his STEM education by pursuing a bachelor's degree in mathematics and transferring to Cal State Los Angeles.

**IRIANA MARTINEZ** is a motivated and adventurous student. She is passionate about education and her future in veterinary medicine. Currently a liberal arts major in mathematics and science, Iriana is preparing to graduate and transfer to Fresno State. Raised in a hardworking agricultural family, she values both hands-on experience and learning from experts. With experience in veterinary settings, Iriana aims to earn a bachelor's in veterinary medicine and minors in Spanish, business, and art. Her goal is to become a veterinarian and create programs that support experiential learning. She is excited to see what the CCIC offers her as a driven and ambitious woman.

**IZAIAH TINAJERO** is a dedicated student at Coalinga College, pursuing an AA in liberal math and science. Passionate about STEM, he actively contributes through his school's MESA program, serving as a tutor to support peers struggling in the field. Izaiah plans to transfer to a four-year university to earn a biology degree, with aspirations of entering the medical field. Committed to giving back, he aims to provide care to those in need while inspiring his ethnic community through representation in STEM and healthcare. His drive and compassion fuel his mission to make a lasting impact in both science and society.

**MIO YAMAMOTO** is a motivated student at Coalinga College, where she is currently pursuing an associate's degree in biology. With a strong interest in the medical sciences, Mio is focused on building a solid academic foundation to prepare for a career as a medical laboratory technician. Her coursework emphasizes hands-on laboratory experience, critical thinking, and a deep understanding of biological systems. She thrives in the lab environment, where attention to detail, precision, and problem-solving come together to support vital healthcare work. Dedicated and detail-oriented, Mio is passionate about contributing to patient care through accurate diagnostic testing and laboratory analysis. Looking ahead, she plans to further her education and training in clinical laboratory science, with the goal of becoming a key part of the healthcare team supporting accurate and timely medical diagnoses.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

**KENNETH HENRY** (Team Mentor) serves as the full-time chemistry instructor and faculty mentor for the Coalinga College MESA Program. With a Bachelor of Science in Chemical Engineering and a PhD in Genetics, Dr. Henry transitioned to education after a successful career in the biotechnology sector, where he discovered his passion for teaching and mentoring. Throughout his academic journey, Dr. Henry has become a dedicated advocate for student success, guiding learners through the complexities of higher education from practical applications to theoretical frameworks. His teaching philosophy centers on experiential learning, which he has significantly enhanced students' long-term retention and conceptual understanding. Committed to the E3 framework for Student Success, Engagement, Encouragement, and Empowerment, Dr. Henry implements these principles in his classroom and mentorship practices. His ongoing dedication to educational innovation and student advocacy continues to shape the next generation of STEM professionals at Coalinga College.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## DALLAS COLLEGE, TX

### PROJECT: ALERTS VIA DETECTION AND RANGING (AVIDAR)

**MANG CIN** is a computer science major at Dallas College (Richland Campus), where she founded the Society of Women in Engineering affiliate. Through this initiative, she is dedicated to advocating for female students in STEM by offering mentorship opportunities. In 2023, Mang completed a software engineering internship at Fidelity Investments, where she refined her technical expertise and leadership abilities. With aspirations to further her education, she aims to pursue a Master of Science in Artificial Intelligence and Innovation at Carnegie Mellon University, while exploring international research opportunities. Mang Cin is preparing for future internships and research endeavors, with a long-term goal of a career in high-performance computing and AI. Outside of her academic pursuits, she enjoys hiking and scrapbooking. She is excited to represent Dallas College at the Community College Innovation Challenge, applying her skills to solve real-world challenges.

**TAYLOR HILL** is a mechanical engineering major studying at Dallas College (Richland Campus). He completed an externship with Halff Associates, where he worked with a bright team to provide practical recommendations for the firm's continued success in the future. He focused on the looming water scarcity crisis, and how Halff's commercial clients can avoid it by utilizing graywater harvesting technology. Taylor thrives in collaborative environments and is always eager to participate in meaningful dialogue in any setting. He recently discovered a love for robotics when he took part of the ARISE program at Dallas College: a ten week internship that combined Arduino IDE and CAD manufacturing with the goal of producing an independent project. Taylor is passionate about continuous growth and plans to earn a master's degree in mechanical engineering from UT Austin. Taylor is ready to apply himself to the Community College Innovation Challenge while he represents Dallas College.

**KHAI HUYNH** is a student at Dallas College (Richland Campus), where he is building a strong foundation in computer science. He is especially interested in how algorithms work and how they can be improved to solve real-world problems faster and more wisely. In fall 2024, Khai will participate in the ARISE program through UR@DC, gaining hands-on research experience and exploring new areas of computer science. He is also set to complete a research internship with UR@DC, strengthening his skills in data analysis, algorithm design, and critical thinking. Khai plans to transfer to a four-year university to earn a bachelor's degree in computer science and statistics. His goal is to work on projects that push the boundaries of technology, whether in AI, data science, or areas he has yet to discover. Driven by curiosity and a passion for research, Khai looks forward to making a real impact in the tech world.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

**CHRISTOPHER ZUNIGA** is a student at Dallas College, where he is completing an associate of science degree and preparing to transfer to a four-year university in fall 2025 to pursue a bachelor's degree in mechanical engineering. He serves as an officer in the ASME chapter and actively participates in STEM-related clubs, sharing his passion for engineering innovation. Christopher gained hands-on experience through an internship with Hunt Energy Network, focusing on project management and technical research. He also participated in an undergraduate research program at his school, where he designed and engineered an Arduino-controlled robotic arm. Looking ahead, he aspires to contribute to advanced engineering projects that integrate robotics and sustainable energy solutions, driven by his commitment to technological progress and real-world impact. Christopher is proud to represent Dallas College in the Community College Innovation Challenge and is excited for the valuable experiences and lessons it will bring.

**LATASHA TAYLOR STARR** (Team Mentor) graduated with a bachelor's degree in aeronautics and biology minor from Tennessee State University. At the University of Washington (Seattle), LaTasha earned her first master's degree in human centered design engineering with a concentration in user interface design and astrobiology. Her second master's, in industrial, manufacturing and systems engineering from the University of Texas at Arlington (UTA), was completed in May of 2020. Five years later, she earned her MBA from the Neeley School of Business at Texas Christian University (TCU). Her passion for ensuring engineering and entrepreneurship remains at the forefront of STEM education, is evident through her professorship at Dallas College, and Texas A&M University, where she not only teaches engineering, but also paves the way for student internship collaborations. As a certified process improvement analyst, her current research focuses on bridging the gap between higher education and industry applications via Lean Six Sigma methodology principles.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## DES MOINES AREA COMMUNITY COLLEGE, IA

### PROJECT: SMART TAPERING VAPORIZER WITH AI-COACHING

**HOLLY DAHLSTROM** is a nontraditional student pursuing an AAS in computer information systems at Des Moines Area Community College in Iowa, where she blends technical expertise with a strong foundation in business. She previously earned a BS in business administration from Waldorf University and brings diverse experience from roles in state corrections, airport security, and education. Holly currently serves as a web accessibility intern at Leepfrog Technologies, where she helps ensure digital content is inclusive and accessible for all users. She is an active member of COMP Club and Phi Theta Kappa. With a 4.0 GPA and a growing portfolio of academic and personal tech projects, she is committed to building thoughtful, user-centered solutions. Holly is grateful for the opportunity to represent her Iowa community college and hopes to contribute in a meaningful way through her passion for technology and learning.

**SHIJIAN (SHAWN) DING** is a student at Des Moines Area Community College, pursuing an Associate of Applied Science (AAS) in Computer Information Systems with a focus on data science. Leveraging his strong background in biochemistry, Shawn brings a unique interdisciplinary perspective to team-based innovation. As one of the founders of AI-CQD, a startup project harnessing embedded systems and AI-driven behavioral coaching to help individuals quit vaping, Shawn has also earned membership in Phi Theta Kappa and the DMACC Honors Program, and was selected for the NASA NCAS program. Driven by a passion for public health, technology, AI, and entrepreneurship, Shawn strives to develop accessible, tech-enabled solutions that promote wellness and equity. In his free time, he enjoys biking, gardening, and playing chess.

**DANIELLE FORKNER** is a dedicated student leader completing her business degree at Des Moines Area Community College (DMACC). She will transfer to Drake University this fall to pursue her bachelor's degree, followed by Drake Law School. Danielle's college experience includes serving as President of DMACC's Student Honors Advisory Board and Phi Theta Kappa chapter, as well as Vice President of the Future Business Leaders of America and Parent Club. Her leadership focuses on creating opportunities for academic and personal growth among students. Beyond campus, she volunteers with the National Marrow Donor Program and Mentor Iowa, supporting youth and families in need. Danielle earned 1st place in Iowa and 8th nationally for FBLA's Community Service Project competition. Passionate about public speaking and advocacy, she participates in charity events supporting veterans and health causes. Danielle is committed to using her education and leadership to make a lasting, positive impact.

**NANCY WOODS** (Team Mentor) is the Director of Advanced Student Academics for the Des Moines Area Community College in Iowa. In this capacity, she is the Director of the DMACC Honors Program and the Coordinator of DMACC's six chapters of Phi Theta Kappa. She has also been a professor of physics and mathematics for over 40 years. Dr. Woods has earned two masters' degrees (physics and mathematics) as well as her PhD in Educational Leadership and Curriculum Development from Iowa State University. Nancy is passionate about supporting students as they work through community college and then on to the next stages of their lives by identifying scholarships, research opportunities, grants, and service programs they can apply for and participate in.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## HENRY FORD COLLEGE, MI

### PROJECT: SUNSYNC – SMART BLIND SYSTEM FOR COMFORT AND ENERGY SAVING

**GREGORY BUSUIOC** is a 13th-year Collegiate Academy Student at Henry Ford College. He plans to pursue a bachelor's degree in electrical engineering with a minor in statistics, and to continue towards earning a master's degree in the field. Gregory currently serves on the board of the HFC Engineering Club, where he helps lead projects and assist club members when they need help. Gregory earned first place in the Henry Ford College Engineering Competition and qualified to compete internationally for HOSA in the event Parliamentary Procedure, showcasing both his technical and leadership skills. These experiences have strengthened his problem-solving, communication, and teamwork abilities, all of which he is eager to continue developing as he advances further in his academic journey. Gregory is very excited to be able to represent Henry Ford College at the Community College Innovation Challenge.

**ZAID PHAROAN** is a pre-engineering student at Henry Ford College, planning to transfer to a four-year university to pursue a bachelor's degree in civil engineering. Zaid works as an Engineering Lab Assistant, where he supports faculty with troubleshooting lab equipment, building prototypes, and assisting with CAD and electronics projects. This summer, Zaid will be a civil engineering intern at Materials Testing Consultants, Inc. as a field technician, performing quality assurance tests on materials like concrete, soil, and asphalt at construction sites. Outside of academics, he is an active member of the Engineering Club, where he enjoys collaborating on engineering challenges. In a past project, Zaid led a team that developed a machine learning model predicting life expectancy, which won first place in a competition. Zaid is passionate about using engineering principles to solve real-world problems, and he looks forward to applying his skills and experience to the Community College Innovation Challenge while representing Henry Ford College.

**JAZMIN VAZQUEZ** is a student at Henry Ford College majoring in mechanical engineering. She plans to obtain her associate's degree and transfer to the University of Michigan to further her studies. Jazmin has a growing interest in design, sustainability, and hands-on problem solving. She was first introduced to 3D modeling through a college course and found it to be a rewarding way to combine creativity with engineering concepts. While still exploring her path within the field, she is passionate about how innovation and STEM education can lead to practical solutions for real-world challenges. Throughout her academic journey, Jazmin is focused on developing key mechanical engineering skills, including design, analysis, and problem-solving. By working on various projects, she is gaining valuable experience and insights into the field's diverse applications. Jazmin is committed to continuing her growth, contributing to meaningful work, and creating sustainable, impactful engineering solutions in the future.

**ASHFIQUA CONNIE** (Team Mentor) has been teaching at Henry Ford College since 2018. She received her master's degree in video communication from the University of British Columbia and PhD in nanotechnology from McGill University.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## HOLYOKE COMMUNITY COLLEGE, MA

### PROJECT: GREEN COMPUTER PROCESSING

**JACOB BISSONNETTE** is an aspiring entrepreneur and student innovator passionate about sustainable technology and systems optimization. Currently studying business with a focus on finance and a minor in electrical engineering, Jacob bridges the gap between technical feasibility and market viability all while working full time as a crane operator at a rebar manufacturing facility. He also serves as president of his college's Magic: The Gathering Club, where he fosters strategic thinking and community engagement. Outside the classroom, Jacob applies his skills to innovation competitions and collaborative projects, drawing on a foundation in programming and web development from Pathfinder Vocational Technical High School.

**ANJOU EDWARDS** is a business transfer major at Holyoke Community College (HCC). After earning her associate degree, she plans to pursue a master's in business at UMass Amherst's Isenberg School of Management, with a minor in environmental science. Anjou is an active member of the National Society of Leadership & Success and serves as the secretary of a campus club. Passionate about environmental issues, Anjou has organized a local environmental cleanup and completed over 50 hours of community service. She also participated in the STEM Starter Academy at HCC, where she deepened her understanding of earth science and environmental challenges. In addition to being a full-time student, she works part-time at a local business. Her combined experience in business and environmental studies has inspired her to pursue solutions that make businesses both profitable and sustainable.

**NORA GONCALVES** is an ambitious and motivated student graduating from Holyoke Community College in May with an associate's degree in engineering science. She will continue her education at the University of Massachusetts Amherst this fall, where she will pursue a bachelor's degree in electrical engineering. Nora was an active member of the STEM Club and served as its president during the fall 2024 semester. In her leadership role, she focused on relationships with local organizations to increase community engagement and learning opportunities. One of her achievements included organizing a visit to the Massachusetts Green High Performance Computing Center in Holyoke, which she assembled to give students direct exposure to computing environments. Nora's technical experience includes using R and RStudio for web scraping and categorizing and filtering large datasets, programming virtual robots with Python, and designing digital circuits with Boolean logic.

**LUCIEN DALTON** (Team Mentor) is an ambitious first-generation and proud alumnus from Holyoke Community College. Lucien accomplished his BS in pure mathematics at UMass, Amherst and is currently completing his master's in mathematics at Western New England University. Being the Engineering Pathways Coordinator at Holyoke Community College allows Lucien to give back to an institution that provided such a transformative experience. His passion is driven by providing opportunities to students who have similar academic experiences to ensure their successful journey.

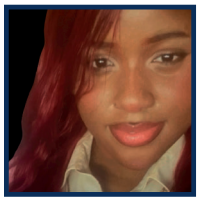
Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## HOUSTON COMMUNITY COLLEGE, TX

### PROJECT: THE NANOSENSE MASK

**KAYLA MILLENDER** is an associate of science student at Houston Community College with a growing interest in STEM. She was selected to participate in the NASA Community College Aerospace Scholars (NCAS) program, where she collaborated with peers on STEM-based challenges and engaged directly with NASA mentors. On campus, she contributes to the Science Interest Club and extends her impact beyond the classroom by volunteering with Second Mile, a community organization focused on service and outreach. She is interested in exploring a range of scientific and technological fields. Kayla embraces opportunities like the Community College Innovation Challenge to expand her knowledge, refine her goals, and take steps toward a future in STEM.



**ONYINYECHI OKONKWO** is a pre-medicine student at Houston Community College, where she is pursuing an associate degree in biology. She currently works part-time as a BLS and OSHA-certified medical assistant at Pharmacy 45, gaining hands-on experience in patient care and clinical practice. As a dedicated leader and lifelong learner, Onyinyechi thrives on building connections, learning from others, and sharing knowledge. Her strengths in communication and creative problem-solving, paired with a competitive spirit, allow her to approach challenges with enthusiasm and resilience. She is passionate about research and medicine and actively seeks opportunities that fuel her curiosity and personal growth. After earning her associate degree, Onyinyechi plans to transfer to pursue a double major in neuroscience and statistics. Her long-term goal is to complete an MD-PhD program and contribute to advancements in medical science.

**MALEXA PATEL** is pursuing an associate of science degree at Houston Community College, with a strong passion for sustainability and public health. She is especially interested in tackling real-world problems like climate change and poor sanitation, and wants to find practical ways to make communities cleaner, healthier, and more informed through science. Her experience includes volunteering in local community programs and participating in an architecture, construction, and engineering (ACE) program, where she explored how design and infrastructure can support healthier, more sustainable cities. Outside of the classroom, Malexa dedicates her time to volunteer work and community service projects, reflecting her deep commitment to helping others and creating long-term change. Looking ahead, she plans to transfer to a four-year university to further explore environmental health and eventually pursue a career in environmental law or public policy, where she can advocate for underrepresented communities and contribute to building a more equitable future.

## Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

**SOFIA WAHEED** is a business major in the Honors College at Houston Community College (HCC). Outside of HCC, she is a licensed real estate agent and works as a marketing assistant, gaining hands-on experience in sales and marketing. Recently, Sofia completed a Data and Sustainability program at Rice University, which sparked a passion for researching the harmful environmental impacts of technology, particularly how these insights can be integrated into marketing strategies. Excited to learn and grow, she is participating in the Community College Innovation Challenge, where she aims to further develop her problem-solving and teamwork skills. With a strong foundation in marketing and a commitment to sustainability, Sofia aspires to build a career that combines creative communication and ethical practices.

**RAVI BRAHMBHATT** (Team Mentor) is a higher education administrator and faculty member dedicated to fostering innovation and entrepreneurship. As Director of Student Innovation and Entrepreneurship at Houston Community College, he develops and leads programs that create economic opportunities for entrepreneurs and small business owners. With a background in tech, media, and digital entrepreneurship, Dr. Brahmbhatt is committed to driving change and solving problems within the entrepreneurial ecosystem. Dr. Brahmbhatt's work includes co-authoring workforce degree plans and certifications focused on innovation and entrepreneurship, which have received national and regional recognition. He also contributes to the broader entrepreneurial community through his roles as Education Chair for TiE.org. Dr. Brahmbhatt serves as a Board Advisor for the Houston Regional Veteran Chamber of Commerce and Innovation Spark, and mentors businesses through organizations like SCORE and UH SURE. His expertise informs his service on multiple regional and international boards focused on fostering entrepreneurship and economic growth.

Advancing Student Innovation & Impact

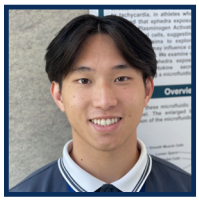
# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## IRVINE VALLEY COLLEGE, CA

### PROJECT: DEFEND LA – AUTOMATIC FIRE PREVENTION SYSTEM

**ABDEL ALI** is a student at Irvine Valley College, where he is completing associate degrees in physical science, biology, and chemistry. He is majoring in biological sciences and brings a strong academic foundation to his pursuits in the health sciences. Abdel previously conducted research at Chapman University as part of the SURFEES program, where he studied the physiology of eelgrass sea hares (Phyllaplysia taylori) and how varying salinities impact their respiratory rates. With a long-term goal of becoming a Doctor of Dental Surgery (DDS), Abdel is passionate about incorporating scientific research into compassionate care. His diverse academic background, research experience, and commitment to service position him to make a lasting impact in the field of dentistry.

**VICTOR BAROUDY** is a promising student at Irvine Valley College striving for a degree in biomedical engineering with a premedical background. After obtaining certificates of achievement in mathematics and physics, as well as an associate's degree in natural sciences, Victor is continuing his academic pursuit and plans to receive two more certificates in chemistry and biology this year. With background experience in 3D modeling and coding from multiple high school and college-level engineering courses, he provides extensive knowledge on prototyping and design methods that optimize product efficiency and reliability. Victor's recent struggle with choosing between his two aspirations, engineering and practicing medicine, led him down a career path that incorporates both fields simultaneously: biomedical engineering. In this field, Victor aims to enhance his medical understanding to innovate and develop various life-saving technologies in the medical field, more specifically, technology that will aid in the advancement of cancer research and treatment.



**LEONARD GEA** is a transfer student from Irvine Valley College to the University of California, Irvine, where he will study as a Regent's Scholar. Passionate about science and healthcare, he has completed prestigious research internships with both the National Institutes of Health and the University of California–Irvine, where he gained hands-on experience in biomedical research. Currently, he works as a Critical Care Transporter with Children's Hospital of Orange County, working alongside nurses and respiratory technicians to transport and stabilize pediatric patients in critical conditions. In his free time, he enjoys mentoring and guiding young members of his community. Currently, he volunteers weekly at Pretend City Children's Museum and at his church, where he serves as a youth group teacher. Looking ahead, he plans to pursue a doctor of medicine degree and is driven by a deep desire to serve his community.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

**JONATHAN LYNCH** is a finance and accounting major at Irvine Valley College (IVC) and has earned an Associate of Science in Business Administration. Jonathan has interned with HubSpot as a marketing AI intern, where he worked directly with a HubSpot client, Ntelly, a Florida-based tax and consulting firm, and executed an AI-enhanced marketing campaign that increased engagement by 30%. He secured second place among 55 teams and 250 total students in the UC Berkeley Haas Transfer Case Competition, showcasing strong financial analysis and problem-solving skills. He also volunteers at Children's Hospital Los Angeles (CHLA), where he manages reconciled financial contributions with 100% accuracy and collaborates with teams to streamline donation processing. Jonathan looks forward to representing the IVC community and applying his skills in finance, marketing, and service leadership at the Community College Innovation Challenge.

**DONALD PERRY** (Team Mentor) is a Professor of Chemistry at Irvine Valley College (IVC) where he teaches both organic and general chemistry. He obtained his BA in chemistry from the University of Nevada, Las Vegas and his PhD in chemistry from the University of California, Irvine. Prior to accepting a position at IVC, he was a Professor of Chemistry at the University of Central Arkansas where he mentored over 50 undergraduate students in National Science Foundation (NSF) funded research and published 20 papers related to nanotechnology with undergraduate co-authors. When not teaching chemistry, he is busy with his family including his wife, Tricia, and teenagers Brianna and Nick. He loves all sports and is always ready for chess.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## J. SARGEANT REYNOLDS COMMUNITY COLLEGE, VA

### PROJECT: ROBOCLEAN-AUTOMATED STREET-CLEANING ROBOT

**MICHAEL BROOKHART** is an electrical engineering student at J. Sargent Reynolds Community College. He hopes to someday work in the power field or research.

**WILLIAM CARNEY** is an electrical engineering student at J. Sargeant Reynolds Community College. He is an officer of his campus robotics club and an inveterate electronics experimenter. Will maintains an interest in fields such as telecommunications, radio frequency devices, and avionics; all of which reflect his enthusiasm for aviation and naval technology. He presently occupies himself with the development of a scratch-built RC boat concept and research into field-programmable gate arrays (FPGAs). Will aims to obtain a bachelor's degree in electrical engineering and hopes to someday work as a civilian employee of one of the Armed Services branches.

**WILLIAM VICKERS** is a recent J. Sargeant Reynolds Community College graduate with a degree in mechanical engineering and is set to continue his academic journey at Virginia Tech, where he will pursue a master's degree in aerospace engineering. Showing strong leadership and initiative, William was a founding officer of the Reynolds Robotics Club. Under his guidance, the club rapidly became the most active student organization on campus in terms of student involvement hours. His dedication to academic excellence is further underscored by his consistent academic honors earned each semester of full-time study.

**SATINDER GILL** (Team Mentor) is an engineering faculty member at J. Sargeant Reynolds Community College and an Adjunct Assistant Professor at Virginia Commonwealth University. He holds a BSc (2006) and MSc (2009) in electrical and computer engineering, as well as a PhD (2015) in the same field from the University of New Brunswick (UNB), Canada. Following his PhD, he served as a Postdoctoral Fellow at the Institute of Biomedical Engineering at UNB. Dr. Gill's academic and professional work lies at the intersection of robotics, artificial intelligence (AI), and biomedical innovation. His research and teaching focus on developing intelligent, adaptive systems with real-world applications in healthcare, assistive technology, and autonomous robotics. He has contributed to projects ranging from AI-driven mobile platforms to robotic systems designed to monitor and enhance quality of life. He is passionate about mentoring the next generation of engineers and applying emerging technologies to solve pressing, human-centered challenges.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## MIDDLESEX COMMUNITY COLLEGE, MA

### PROJECT: INSIGHT

**KARL HAMPTON** is finishing his associate's degree in electrical engineering at Middlesex Community College. During this time, he interned as an engineering technician at Wintriss Controls Group where he built practical experience working closely with manufacturing and electrical engineers. Karl brings a strong blend of technical knowledge, effective communication skills, and a proactive approach to learning, making him a reliable and engaging team member. He is naturally curious and enjoys independently tackling challenges, demonstrated by his role in his team to explore how AI models could integrate with technological solutions. Karl looks forward to the CCIC Boot Camp to broaden his industry knowledge, foster innovation, and strengthen his entrepreneurial skills. Outside of academics and work, he loves working on cars which has deepened his mechanical understanding and hands-on engineering experience.

**CORTNEY SCHULTZ-CORSON** is a passionate student currently pursuing an associate's degree in CAD engineering at Middlesex Community College. She has hands-on experience in drafting and 3D modeling using SolidWorks, Revit, and AutoCAD. While interning at Kaestle Boos Associates, she contributed to the redevelopment of her former high school, deepening her interest in architecture and community-focused design. At Closets By Design, she supports project planning by calculating design specifications and material requirements. Cortney has held leadership roles in student government, served as a freshman representative for the American Institute of Architecture Students, and launched an anti-bullying task force. She remains active in her community through volunteer work with organizations such as the Lexington Food Pantry and the Walk for Hunger. As a participant in the Community College Innovation Challenge, Cortney looks forward to applying her technical skills and creativity to develop meaningful solutions that will improve and enhance everyday life.

**CRISTOPHER ALGARRA** (Team Mentor) is Chair of the Engineering Department at Middlesex Community College (MCC) where he leads efforts to make technical education more hands-on, inclusive, and career-ready. Born and raised in Venezuela and trained as a mechanical engineer, Cris combines real-world industry experience with a deep commitment to student success. Since joining MCC, he has launched new degree programs in engineering, robotics, and CAD; created stackable microcredentials in high-demand fields; and helped to secure grants to modernize curriculum and expand access. A passionate mentor, Cris supports students through the NSF-LSAMP program and has guided student teams to national recognition. Whether redesigning programs with industry partners or hosting late-night lab sessions with his students, Cris brings energy, creativity, and purpose to everything he does. His leadership has been recognized by the Greater Lowell Chamber of Commerce and the League for Innovation—and he continues to shape the future of engineering education, one student at a time.

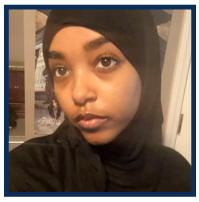
Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## PERIMETER COLLEGE AT GEORGIA STATE UNIVERSITY, GA

### PROJECT: ROYANEST – LIFE-SAVING CARE DEVICE FOR ASPHYXIA NEONATORUM

**PALOMA HODJE** is a sophomore at Georgia State University Perimeter College, majoring in engineering and mathematics. She recently graduated Summa Cum Laude with research honors with an associate's degree in math while also enrolled in the engineering pathway. Currently, her interests lie at the intersection of electrical engineering, AI, and biomedical engineering to improve healthcare outcomes. At Perimeter College, she conducts research in fluid dynamics and bioinformatics with the Department of Mathematics and Statistics. She is involved with the Women in STEM Experience Club, LSAMP, and the Computing and Engineering Club, and she also helps with STEM outreach initiatives and peer tutoring at MESA. Paloma is thrilled to participate in this year's 2025 CCIC Boot Camp to present a neonatal health project dear to her for the potential it holds for developing countries.



**NAJMA JAMA** is an upcoming sophomore in the engineering pathway at Georgia State University Perimeter College. She is passionate about becoming a biomedical engineer and plans to transfer to a four-year institution such as Georgia Tech or Kennesaw State University. Najma is actively involved in several campus programs, including LSAMP, MESA, and the Summer Research Program. She also enjoys giving back to her community by volunteering at local schools and participating in various service events. In Najma's free time, she enjoys doing art and reading books. Her skills include research and problem-solving.

**NDEYE SARR** is an aspiring engineer at Georgia State University Perimeter College, pursuing an associate's degree in engineering. With a strong interest in architecture and structural engineering, she enjoys visualizing infrastructure and solving real-world challenges. Passionate about sustainable development and smart design, she hopes to help shape future cities through resilient and inclusive infrastructure. Outside the classroom, Ndeye is dedicated to continuous learning and inspiring others by blending creativity with engineering precision. She has been recognized for academic excellence, earning the 2024-2025 Freshman STEM Scholar of Excellence in Engineering and multiple Student of the Semester honors in mathematics. As a student ambassador and tutor, she is known for her leadership, adaptability, and commitment to helping others succeed. Ndeye looks forward to participating in the Boot Camp to grow as a future leader in engineering and to continue applying her creativity, perseverance, and collaborative spirit to real-world challenges.

**KIMMY KELLETT** (Team Mentor) is an Associate Professor of Biology and a Faculty Associate of the Perimeter College Hub for Innovation and Entrepreneurship (PCHIE). She earned her PhD in ecology from the University of Georgia and has enjoyed teaching and advising students at GSU PC since 2016. Her favorite parts of teaching include leading study abroad programs and field trips. As a PCHIE faculty, Dr. Kellett helps students work toward their professional and entrepreneurial endeavors. She is excited to bring what she learns in the Boot Camp back to campus to help student teams compete in Perimeter College's own Innovation Challenge (inspired by the CCIC) next fall.

Advancing Student Innovation & Impact

# 2025 COMMUNITY COLLEGE INNOVATION CHALLENGE

## TULSA COMMUNITY COLLEGE, OK

### PROJECT: PORTAL – AN INTEGRATED DRONE DELIVERY SOLUTION

**ADRIAN CARRILLO** is studying Spanish and business at Tulsa Community College, where he serves as president of the Investing Club. A former sergeant in the United States Marine Corps, Adrian now works as a licensed real estate agent in Oklahoma, bringing dedication and a strong work ethic to both his studies and professional life. He plans to continue his education in finance and expand his real estate career, with a long-term goal of helping others achieve affordable home ownership. Outside of school and work, he enjoys investing, playing pickleball, and fishing.

**JONATHAN FORD** is a mechanical engineering and computer science major at Tulsa Community College, preparing to begin the College Park program with Oklahoma State University-Tulsa in fall 2025. An entrepreneur and lifelong learner, he founded a record label and design agency before turning his focus to engineering and technology. Driven by intrinsic motivation and a deep curiosity for how the world works, Jonathan is passionate about using innovation to improve people's lives. Through volunteer work and community involvement, he strives to connect technical solutions with real human needs, aiming to build a smarter, more compassionate future.

**JEFF HORVATH** (Team Mentor) has supported entrepreneurs, aspiring entrepreneurs, and students for over 30 years. He has empowered thousands to launch and scale their businesses, while emphasizing the importance of a healthy work-life balance. Since 2014, Mr. Horvath has taught entrepreneurship to a diverse group of traditional and nontraditional students at Tulsa Community College in Oklahoma. He also teaches entrepreneurship at correctional facilities, equipping them with skills to start a business upon re-entry. He is dedicated to inspiring students to reach their potential and pursue their entrepreneurial dreams.