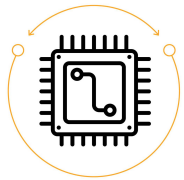




SCALE K-12

SCalable Asymmetric Lifecycle Engagement

OUR HIGHLIGHTS



WCHS SENIOR BEGINS FIRST MICROELECTRONICS INTERNSHIP IN THE REGION

Xavier Frank, a senior at Washington Community High School, secures first ME internship

PURDUE SCALE K-12 SUMMER PROGRAMMING TAKING APPLICATIONS

Two opportunities for high school juniors and seniors during summer of 2024

SCALE K-12 GRADUATE STUDENT HIGHLIGHTS

Meet the Purdue graduate students who are helping SCALE K-12 Teacher Fellows to design microelectronics curriculum units

SCALE K-12 LEADERSHIP TEAM

Tamara Moore, PhD
Program Director

Selcen Guzey, PhD
Professional Development Lead

Morgan Hynes, PhD
Summer Programs Lead

Kerrie Douglas, PhD
Assessment Lead

Greg Strimel, PhD
Technical Education Lead

Anne Ottenbreit-Leftwich, PhD
Coaching Co-Lead

Gamze Ozogul, PhD
Coaching Co-Lead

Michi McClaine, M.S.Ed
Vertical Alignment Lead

Mary Pilotte, MBA, PhD
Curriculum Specialist and Industry Liaison

Rena Sterrett, M.Ed.
Senior Project Manager



Washington Community High School Senior Begins First Microelectronics Internship in Region

Press release on 12/14/2023 by Washington Community Schools:

The College & Career Academy at Washington High School is pleased to announce a partnership with Reliable MicroSystems that will create the first-of-its-kind Microelectronics High School Student Internship beginning in January 2024. Computer Science student Xavier Frank, a senior at WHS, will serve as a Staff Engineer - Intern.

"This internship is the result of the collaboration of local, regional, and state entities, and I believe it to be just the beginning. I am excited to see the hard work of our teachers and students pay off as we implement additional STEM opportunities and increase the academic rigor of our Early College program. We have an amazingly talented pool of young people in our area, and it's important to keep them here," said Assistant Superintendent Steve Peterson.

"We are extremely pleased that Reliable MicroSystems and Washington Community Schools will be the first microelectronics partnership in ROI's UpSkill Work and Learn program," shared Kimberly Waldridge, Regional Opportunity Initiatives' Sector Specialist. "As the microelectronics industry expands in the Indiana Uplands region, multiple opportunities for partnerships with UpSkill, area schools, and employers will emerge. Reliable MicroSystems is paving the way for more students, like Xavier, to gain work experience, on-the-job training, and exposure to career opportunities that align with the national security and defense sector."

"Through partnerships like the one developed between Washington Community Schools and Reliable MicroSystems, more students have access to high-growth career pathways and employers can proactively build their talent pipeline. The Indiana Chamber of Commerce and the Institute for Workforce Excellence are proud to be part of this partnership by assisting with the EARN Indiana funding to support a portion of the internship salaries," said Todd Hurst, Institute for Workforce Excellence.



L-R Washington HS Principal Brian Holland, Superintendent Kevin Frank, Mrs. Amy Frank, Xavier Frank, Dr. Matt Thompson, Reliable MicroSystems, Kim Waldridge, ROI, and Matt Riney, Computer Science teacher at WHS and SCALE K-12 Teacher Fellow

"We've been fortunate to partner with Washington Community Schools on our SCALE K-12 project. Washington Community teachers have been eager to integrate new ideas and technologies into their SCALE K-12 curriculum units to help students gain a better awareness of microelectronics in the world around them. The steps taken by Washington Community Schools will help area students enter the workforce better prepared for the changes taking place in our ever-changing world," said Rena Sterrett, SCALE K-12 Senior Project Manager.

"We're excited to bring Xavier on board at Reliable MicroSystems, he has clearly worked hard to get where he is today. Programs like SCALE K-12, as well as others, are critical when it comes to building the talent pool of the future for the microelectronics industry in the United States. If we can cultivate and nurture an interest in STEM fields at an early age, we can encourage more young people to explore the wide range of career fields available to them in STEM. We hope that Xavier will leave this program excited about pursuing a career in microelectronics, ideally right here in Southwest Indiana, and this program will continue to grow in the future. Some fantastic opportunities are coming to this region in the next few years and Reliable MicroSystems is proud to partner with Washington High School, ROI, and others in the local community to help make those opportunities available," said Dr. Matt Thompson, Reliable MicroSystems Program Manager.

If your SCALE K-12 school has exciting microelectronics-related news to share, please contact Rena Sterrett at scale.k12@purdue.edu. We want to publish your news in our newsletter!

PURDUE SCALE K-12 SUMMER PROGRAMMING TAKING APPLICATIONS

TWO OPPORTUNITIES FOR HIGH SCHOOL JUNIORS AND SENIORS DURING SUMMER OF 2024

Ivy Tech Community College and Purdue University, from the Indiana Economic Development Corporation's READI program, have developed a new semiconductor workforce development program for high school rising juniors and seniors in the Greater Lafayette region. This partnership will provide opportunities for local high school and college students to pursue careers as technicians, operators, and engineers to support the region's semiconductor industry.

Exciting planned activities for this summer include: hands-on experience with faculty at Ivy Tech and Purdue, site visits to area manufacturers who use semiconductors, opportunities to hear from industry leaders, and connect with like-minded peers. To learn more and apply, please visit the READI Program site: <https://engineering.purdue.edu/semiconductors/readi>



Purdue University is excited to offer intensive short-term opportunities for high school students during June and July. Move-in and orientation for each experience will occur on Sunday and class sessions begin on Monday.

When you submit an application for Summer College for High School Students, you will indicate up to three preferences for short-term courses. While you may only select up to three preferences, you may be considered for any program under Summer College for High School Students. Submitting an application for a single program does not guarantee admission into that program.

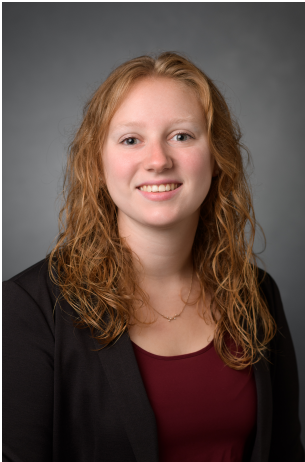
Please visit the Summer College for High School Seniors website at <https://www.purdue.edu/summer-high-school/enrollment-options/fun.php> to view the available weeks and courses being offered during the summer of 2024.

The SCALE K-12 program will be offering scholarships for the July 21-26 session entitled *MicroArtistry: Compassionate Arts and Engineering*. These scholarships are available for any student within one of the participating SCALE K-12 school districts. If interested, please contact Rena Sterrett at scale.k12@purdue.edu



SCALE K-12 GRADUATE STUDENT HIGHLIGHTS

RACHEL GEHR



Rachel Gehr is a PhD student in Engineering Education researching assessment of environmental justice curriculum. She has worked on the SCALE K-12 project for one year helping to write microelectronics curriculum units, assessments embedded within the units, and collecting data.

The units Rachel has written have focused on: 1) creating an electronic expansion pack for the Sphero BOLT, 2) sequestering carbon through design of an algae farm, and 3) using household items to build a water filter.

Rachel has enjoyed working with the Teacher Fellows throughout the writing process and looks forward to seeing her work implemented in the spring. ///

EMILY M. HALUSCHAK



Emily is a PhD student in the school of Engineering Education at Purdue University. Emily is interested in leveraging integrated curriculum development in K-12 settings to positively impact underserved populations in the field of engineering. She utilizes past experiences in STEM program evaluation, education policy, and chemical engineering research.

Emily has helped to develop two curriculum units as part of SCALE K-12. The first unit is a 5th-10th grade English and engineering unit where students learn about informative writing as they design a board game and code microelectronics components. The second unit is a math and engineering unit where students learn about extrema, continuity, and intercepts while designing a stress intervention method using a sensor. ///

AZIZI PENN



Azizi is a PhD student in Engineering Education with an M.S. in Software Engineering and a B.S. in Computer Science. Azizi has also enjoyed a 25+ year career as a software engineer.

Azizi has helped to write three microelectronics units entitled *E-waste Upcycle/Recycle, Let the Good Ideas Roll & Make Sense*.

Azizi believes that working on SCALE K-12 has been a valuable learning experience. She values teachers' input and collaborating with them, fellow graduate students, and other team members. She feels more prepared to design curricula to meet student and teacher needs in the realm of microelectronics. She also feels more prepared to conduct or assist in teachers' professional development in a productive manner. ///

BREEJHA QUEZADA



Breejha is a 4th year PhD student in Engineering Education. Breejha is helping to write microelectronics curriculum units focused on physics, math, and technology.

Breejha feels that the SCALE K-12 project has created a great team environment and she enjoys learning about the interface between Teacher Fellows, students, and a university like Purdue. ///

IMANI ADAMS



Imani is a PhD student in Engineering Education. Her work on SCALE K-12 involves helping to write a science/computer science unit called *Lock It Up!* ///

FOR MORE INFORMATION ABOUT SCALE K-12, CONTACT: