

Alexander Kwasinski

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alexander-kwasinski.github.io/portfolio/home.html | GitHub: Alexander-Kwasinski

PROJECTS

Society of Astronautics and Robotics: University Rover Challenge

08/2023 – present

Software and Electrical Team Leader

- Directing a team of 7+ to accomplish our software and electrical competition tasks
- Created embedded systems that interfaced with a Jetson Nano using Ubuntu Linux operating system
- Utilizing Robotics Operating System (ROS2) to ease navigation and control
- Coded a GUI in Python to allow for user movement control
- Utilized Arduino, code, and hardware to control movement and gain data from surrounding area

Robotics and Automation Society: Micromouse Competition

08/2023 – present

Electrical Subteam Member

- Working with a team to build and test a physical micromouse robot
- Wired and created firmware to confirm component viability
- Created a working prototype of the mouse to test maze-solving algorithms
- Contributed to the research and purchase of necessary components

Technology Student Association: Drone Challenge (UAV) Competition

09/2022 – 04/2023

- Placed 1st of around 40 teams in the state of Pennsylvania
- Designed and built a drone with a claw using CAD, electronics knowledge, and soldering
- Researched and bought components under a 500-dollar budget

WORK EXPERIENCE

Math Tutor at Mathnasium

01/2022 – 06/2023

- Taught math to students from 6 to 18 years old
- Worked with up to 5 students of differing math levels and ages at once
- Helped improve students' grades by answering questions and teaching higher-level topics

High School Research Assistant

06/2022 – 08/2022

Worked with Dr. Ortega-Llebaria from the University of Pittsburgh

- Coded a program (in Python) that compiles information from over 100 participants using different data sources (oral recordings, survey items, and test scores)
- Filtered data using Python scripts and Excel
- Language of communication: Spanish

EDUCATION

The University of Pittsburgh

08/2023 – 2027

Majoring in Computer Engineering

- GPA: 3.85/4.0
- Institute of Electrical and Electronics Engineers, Society of Hispanic Professional Engineers

RELEVANT COURSES

Current: ECE Problem Solving with C++ | Digital Circuits and Systems | Linear Circuits and Systems | ECE Analytical Methods

Completed: Intro to Engineering Computing | Physics for Engineering 1 and 2 | Applied Discrete Math | AP Computer Science A (High School) | Plus 3 South Korea (Study Abroad)

SKILLS

C++, C, Java, Git and GitHub, Linux, ROS2, Arduino, HTML, CSS, MATLAB, Excel, Microsoft Office, CAD, Electronics, Spanish — All skills are proficient or above

AWARDS AND SCHOLARSHIP

- University of Pittsburgh: Swanson School of Engineering Dean and Term Honors List | Swanson Engineering Excellence Scholarship | Cathedral of Learning Achievement Scholarship
- High School: College Board National Recognition Program Award: Hispanic | AP Scholar with Distinction Award