Piss Fuck

734-787-8832 | ryankima@umich.edu | linkedin.com/in/ryankima | github.com/ryankima

Education

Michigan State University East Lansing, MI

Bachelor of Science in Bartending, Minor in Being Unpleasant; GPA: 2.7Aug. 2021 - Present (Expected Graduation: May 2025)

- Coursework: Food and Beverage Management, Mixology, Customer Relations, Event Planning, Business Finance.
- Currently pursuing with an expected graduation date of May 2025.

Technische Universität Berlin Berlin, Germany

Study Abroad; International Laboratory Experience in Robotics Programming *May 2022 - Jun. 2022*

Experience

Engineering Development Group Intern Natick, MA

The Mathworks *May 2023 - Aug 2023*

- Pioneered a code-generation pipeline permitting GPU hardware acceleration through Vulkan, resulting in 2x speed-ups in matrix operations with generated compute shaders; deployed open-source software to trim development time and introduce novel code optimizations.
- Expanded GPU acceleration code generation to target additional hardware platforms through using IREE; created MLIR conversion passes to convert internal code generated intermediate representation, enabling the utilization of pretrained third party machine learning models.

Student Fellow Ann Arbor, MI

Consortium for Monitoring, Technology, and Verification - University of Michigan *Jun 2022 - May 2023*

- Revamped software architecture for low-cost Geiger Counter, resulting in improved hardware performance, increased device compatibility, and reduced future maintenance requirements.
- Developed software for Raspberry Pi sensors for environmental radiation monitoring; created custom wiring harnessing to connect sensors with custom PCB, improving vibration safety, durability, and maintenance ease; identified PCB design flaws for future revisions.

Instructional Assistant Ann Arbor, MI

University of Michigan *Aug 2022 - Dec 2022*

- Devised course materials for introductory engineering concepts focusing on electrical engineering, radiation science, and radiation detection; fostered a safe, team-focused learning environment.
- Ensured safety compliance for students handling radiological sources through lesson planning, personal protective equipment, and lab execution; analyzed and optimized the circuit design of class-made Geiger counter by tuning software to heighten the device's radiation sensitivity.

Assistant in Research Ann Arbor, MI

University of Michigan *Sep 2021 - May 2022*

- Developed firmware for custom sensors connected to an autonomous drone running PX4 autopilot, employing reliable communication protocols such as SPI and UART.
- Performed design analysis to balance the weight and power of system computers for aerial drone applications with the required computational strength; created a hardware development environment to swiftly test communication protocols and boards.

Skills

Languages: C/C++, Python, Java, HTML5, CSS, JavaScript, C#, SQL, Matlab
Tools: XCode, Visual Studio, Git, Github, CAD, Raspberry Pi, SolidWorks, MySQL, MongoDB, Android Studio, Flask, IREE, MLIR, Vulkan, GPU, Compilers