

Calvin Huang

LinkedIn
<https://calvang.github.io>

calvang@umich.edu
(513) 693-5266

EDUCATION

- **University of Michigan** Cincinnati, OH
BSE Computer Science, GPA: 3.850 September 2018-expected May 2022
 - Course Highlights: Machine Learning, Computer Vision, Cybersecurity, Data Structures and Algorithms, Databases, Computer Architecture, Web Systems, Linear Algebra

PROFESSIONAL EXPERIENCE

- **Principal Financial Group** Remote
Full-Stack Software Intern June 2020-August 2020
 - Spearheaded the transition to a new change management system, added security features to app deployment pipeline via back-end implementation and Ansible automation, and created a server check for conflicting jobs in order ensure reliable metrics on feature changes and deployments.
 - Added deployment API features by implementing a cycle all functionality and reducing deployment downtime through dynamic delay integration.
 - Led Code Jam team in brainstorming and development of a full-stack web app hosted in AWS and mentored peers in working with web technologies such as React, Flask, and web hosting within the span four days.
- **Radiological Health Engineering Laboratory** Ann Arbor, MI
Research Assistant, Dr. Kimberlee Kearfott September 2019-Present
 - Researched and composed a machine learning model to correlate predictors for indoor radiation levels for use in early detection of earthquakes
 - Designed accessible, self-assembled radiation detectors for high school students to promote interest in engineering and STEM fields.
 - Developed iOS and Android apps and heat map interface for tracking radiation data collected by Raspberry Pi computers in student-built radiation detectors.
- **MROver Project Team** Ann Arbor, MI
Computer Vision Software Engineer September 2018-May 2020
 - Implemented AR tag detection algorithms using OpenCV for a fine-and-identify task in the University Rover Challenge.
 - Presented professional design reviews to the team to interface with other sub-teams to decide design priorities for implementing obstacle detection.

PERSONAL PROJECTS

- **COVID-19 Heatmap**
Web Application for Monitoring Projections of the Spread of COVID-19
 - Designed client-side web app using React and Google Maps to visualize global data of COVID-19 cases in the past, present, and future using heat-maps.
 - Developed efficient REST API and used Rust for multi-threading to collect and sanitize detailed geographical data at specified time intervals and communicate current data on-demand to the front-end.
- **Anonymous Video Conferencing**
Video Chat Web Application for Virtual Hangouts
 - Incorporated WebRTC video technology into modern video-client web app that can be easily self-hosted for secure and anonymous communication.
 - Set up Node.js backend socketing and custom peer-to-peer server for reliable and secure video calling.
- **Six-Axis Robotic Arm**
Automated Mini Robotic Arm for Simple Tasks
 - Constructed automated 6-axis, 3-D printed robotic arm to perform sorting tasks in a small workspace.
 - Created Windows desktop application using .NET Framework to interface with micro-controllers to store data used to automate the robotic arm.

SKILLS

- **Programming Languages**

- C/C++, MATLAB, Python, Swift, C, Java, Javascript/TypeScript, Rust, Julia, MySQL, MongoDB, DynamoDB*

- **Technologies and Frameworks**

- OpenCV, .NET, React, NodeJS, Flask, JAX-RS, Rocket (Rust), Genie(Julia), WebAssembly, AWS, Google Cloud, Jupyter*

HONORS

- **University of Michigan Dean's Honor Roll**

December 2018-Present

- **Tau Beta Pi Michigan Gamma Chapter**

September 2019-Present