COLLIN DANG

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https://collindang88.github.io/portfolio_massive/

Education

University of Washington, Seattle | Computer Science | Class of 2023 | GPA: 3.94

Technical Skills

Languages: Python, Java, JavaScript, HTML/CSS, SQL, C, MATLAB, C#, Bash

Software/Tools: Git, Docker, .NET Core, Django, Linux, Unity, ROS, Vue.js, Android Studio, Google Firebase, Raspberry Pi

Internship Experience

Software Engineering Intern | UiPath   June 2022 – Current
- On Tenancy and AuthZ Team

Software Engineering Intern | Dotmote Labs   June 2021 – Sept. 2021
- Managed SWEEP, a workflow management system for large companies
- Used Python, JavaScript, and Django to update and improve the SWEEP web app
- Created and accessed SQL databases within the Django framework
- Prepared SWEEP app for official launch to the public

Research Experience

Undergraduate Research Assistant | UW Robotics Laboratory   Feb 2022 – Current
- Work on AURMR (Amazon-UW Robotics Manipulation Research) project under guidance of Professor Joshua Smith and PhD student Boling Yang
- Integrate motion planner to move robotic arm and avoid collisions in ROS (Robot Operating System)
- Write scripts for calibration of robotic arm with respect to surrounding environment
- Improve robot gripper representations within simulation environment to accurately represent real life

Undergraduate Research Assistant | UW Sensor Systems Laboratory   April 2021 – Sept. 2021
- Used Python and MATLAB to transmit and decode sound data with a Raspberry Pi
- Automated many of the encoding and decoding tasks
- Lowered bit error rate to <1% for all transmissions
- Presented findings to Boeing, which resulted in a research grant for UW Sensor Systems Laboratory

Programming Projects

Chrome Website Blocker | [Chrome Web Store]   Dec. 2021 – April 2022
- Created a Chrome extension that replaces blocked sites with ASCII emojis
- Used Bootstrap, JQuery, JavaScript, and HTML/CSS to design the extension and add functionality
- Syncs data across all Chrome devices with the chrome.storage API
- Published on Chrome Web store
- Has accrued 35+ global downloads since January 2022

No Belly Left Behind | HackUMass VII Hackathon   Nov. 2020 – Dec. 2020
- Created a mobile app for locating over 300 food banks in the Seattle area
- Worked on backend, handling data in JSON format and parsing the data for later use
- Integrated GPS that found the user's location and proximity to nearby food banks
- Implemented filter system that filtered food banks by proximity to user, days/hours open, and target audience
- Used Android Studio, Google Maps SDK, Google Firebase, and the Seattle Public Data Set

Awards: National Merit Finalist, National AP Scholar, WA HS Chess State Team Championship 2020: 2nd place

Relevant Coursework: Intro to Algorithms, Software Design and Implementation, Intro to Artificial Intelligence, Systems Programming, System and Software Tools, Hardware-Software Interface, Introduction to Data Management, Data Structures and Parallelism, Foundations of Computing I and II