

# COLLIN DANG

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[https://collindang88.github.io/portfolio\\_massive/](https://collindang88.github.io/portfolio_massive/)

## Education

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**University of Washington | Seattle, WA | Class of 2024**

Major: Computer Science

GPA: 3.94

## Technical Skills

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

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

## Work Experience

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### Software Engineering Intern | Dotmote Labs

June 2021 - Sept. 2021

- o Managed SWEEP, a workflow management system for large companies
- o Used Python, JavaScript, and Django to update and improve the SWEEP web app
- o Created and accessed SQL databases within the Django framework
- o Prepared SWEEP app for official launch to the public

### Undergraduate Research Assistant | UW Sensor Systems Laboratory

April 2021 - Sept. 2021

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

### Robotics Teacher/Summer Intern | Radiance Learning

July 2019 - Aug. 2019

- o Worked at Radiance Learning, an enrichment program for teaching STEM subjects to elementary and middle school students
- o Used Lego Mindstorms EV3 kits and coding software
- o Taught robotics to 50+ students over the course of eight weeks

## Programming Projects

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### No Belly Left Behind | HackUMass VII Hackathon

Nov. 2020 - Dec. 2020

- o Created a mobile app for locating over 300 food banks in the Seattle area
- o Worked on backend, handling data in JSON format and parsing the data for later use
- o Integrated GPS that found the user's location and proximity to nearby food banks
- o Implemented filter system that filtered food banks by proximity to user, days/hours open, and target audience
- o Used Android Studio, Google Maps SDK, Google Firebase, and the Seattle Public Data Set

### FitFriends | Hack '20 Hackathon

July 2020 - Aug. 2020

- o Created a web app that allows users to share and post workouts online
- o Worked on frontend, creating the user interface and handling user input
- o Used variety of text forms to send data to backend for processing, and then displayed processed data on web page
- o Used Vue.js, JavaScript, HTML, and CSS

### A Chef's Guide on How to Hunt a Wumpus | Microsoft Hunt the Wumpus Coding Competition

Jan. 2019 - June 2019

- o Created a maze-like dungeon crawler 2D video game in a group of seven as project manager and lead engineer
- o Programmed logic for traversing different "rooms" within the maze and character movement within the maze
- o Showcased project at Microsoft's annual Hunt the Wumpus convention
- o Used Unity, C#, and Microsoft Visual Studios

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**Awards:** National Merit Finalist, National AP Scholar, WA HS Chess State Team Championship 2020: 2<sup>nd</sup> place

**Relevant Coursework:** 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