

Collin Dang

collindang88@gmail.com | [linkedin.com/in/collin-dang/](https://www.linkedin.com/in/collin-dang/) | collindang88.github.io

EDUCATION

University of Washington

MS, Computer Science | GPA: 3.86

BS, Computer Science | GPA: 3.91

March 2023 - June 2024

September 2020 - March 2023

Relevant Coursework: Operating Systems, Algorithms, Compilers, Distributed Systems, Systems Programming, Networks, Database Systems, Machine Learning, Security

LANGUAGES & SOFTWARE/TOOLS

- **Languages:** Python, C++, C#, C, Java, JavaScript, HTML/CSS, SQL, MATLAB, Bash
- **Software/Tools:** Linux, .NET Core, Apache Kafka, Git, React, Docker, Django, Unity, ROS, NodeJS, Vue.js, Android Studio, Google Firebase, Raspberry Pi

WORK EXPERIENCE

Optiver

June 2023 - August 2023

Software Engineering Intern

Chicago, IL

- Engineered a Python-based application to publish real-time edge market share data to a front-end C# platform, utilizing Apache Kafka, enhancing data accessibility for traders
- Optimized system efficiency by integrating a memory-efficient streaming service in C#, leading to a 30% reduction in memory consumption for a front-end trade-fetching tool
- Amplified the functionality of existing C#/WinForms trading tools by broadening the capabilities of input fields, facilitating enhanced customization and improving user experience

UiPath

June 2022 - September 2022

Software Engineering Intern

Bellevue, WA

- Reduced company logs by over 50% while still maintaining the ability to dynamically reenable logs via feature flagging, leading to a cost reduction of up to \$10,000 per month
- Dynamically reconfigured application telemetry using feature flagging with LaunchDarkly API as part of Organization Management Services (OMS) team
- Augmented telemetry pipeline to Azure Application Insights and wrote unit testing to verify these changes in C# and .NET Core

RESEARCH EXPERIENCE

UW Robotics Laboratory

February 2022 - June 2023

Research Assistant

Seattle, WA

- Worked on AURMR (Amazon-UW Robotics Manipulation Research) project under guidance of Professor Joshua Smith and PhD student Boling Yang
- Implemented dual-cost settings for model-predictive control algorithm, allowing finer-grained control of UR16e robot with Python
- Pioneered retry mechanism for picking, increasing successful pick rate by >10% during evaluation

UW Sensor Systems Laboratory

April 2021 - September 2021

Research Assistant

Seattle, WA

- Engineered data transmission method using sound waves generated by a motor, utilizing Audacity and a Raspberry Pi for data transmission and decoding
- Lowered bit error rate to <1% for all transmissions with statistical analysis of audio frequencies
- Presented findings to Boeing, which resulted in a research grant for UW Sensor Systems Laboratory

PROGRAMMING PROJECTS

Sorting Visualizer [\[GitHub\]](#)

- Engineered a robust C++ application designed to visually represent insertion sort, selection sort, heap sort, quick sort, and bubble sort, enabling users to understand and compare the intricacies of each algorithm
- Leveraged SFML library to create dynamic and interactive graphics
- Optimized the automated testing and build process by integrating GitHub workflows and PowerShell scripts

Other Projects: Sudoku Solver [\[GitHub\]](#) | Chrome Website Blocker [\[GitHub\]](#) | Chat GPT Discord Bot [\[GitHub\]](#)

Awards: National Merit Finalist, WA High School Chess State Team Championship 2020: 2nd place

Interests: Quantitative finance, full-stack development, robotics, chess, running, productivity