

# EMMA LEE

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## EDUCATION

### University of Washington, Seattle

September 2022 - Present

B.S. in Computer Science & Engineering, Minor in Math & Business  
Executive Graphics Director for COM<sup>2</sup>, Husky Taekwondo Club  
CSE 451: Operating Systems, CSE 333: Systems Programming  
CSE 421: Algorithms, CSE 332: Data Structures and Parallelism  
CSE 312: Foundations of Computing II, Math 242: Advanced Multivariable Calculus, Math 300: Mathematical Reasoning  
Overall GPA: 3.84, Dean's List

## EXPERIENCE

### UW Allen School Mobile Intelligence Lab

January 2024 - Present

*Research Assistant*

- Lab project with Prof. Shyam Gollakota using Swift and PyTorch for noise-cancelling applications. Built an iOS app that optimizes a system of neural networks to identify target speech from noisy environments and cancel non-target binaural audio. Integrated the iOS with minimal latency real-time audio loopback and compact ML model.

### UW COM<sup>2</sup>

June 2023 - Present

*Executive Graphics Director*

*Seattle, WA*

- Working with a small team of graphics designers to create designs and promote the computing community at the University of Washington.

### UW SEAL

September 2022 - December 2022

*Research Assistant*

*Seattle, WA*

- Created a sensor for COVID-19 detection and safe distancing in a research team; created outreach programs for the underrepresented
- Wrote the NSPIRES proposal paper for NASA

## PROJECTS

### xk Operating System

March 2024 - June 2024

- A primitive working implementation of an operating system using C based on Unix/Linux booted on real hardware. Added various syscalls, allowed multiprocessing/concurrency, a full-featured VM system, and transactional logging.

### Web Search Engine

December 2023 - March 2024

- A complete web server implementation with C/C++ with a webpage search bar that accepts client search requests, finds documents/webpages in the local server, and responds on the internet. Used C/C++, HTTP, TCP/IP, Unix/Linux, POSIX, and DNS protocols.

### Everlearn

June 2023 - October 2023

- Web programming project built with React + Firebase. Users can register with multiple platforms to find peers to learn from and teach to. Integrated chat function with points and achievement system to keep engagement. Submitted to Dubhacks 2023.

### BookHub

June 2023 - August 2023

- Web programming project with client-server architecture: frontend with React, backend with NodeJS + Express
- Used Open Library's public API; users can search up books, record dates, ratings, and reviews, and add booklogs to a book list

## STRENGTHS AND PASSIONS

### Languages/Tools

Java, Python, C/C++, React, Node/Express.js, Swift, TS/JS, Git, Figma, Matlab, HTML/CSS, OCaml, TCP/IP, Linux/Unix, Firebase

### Passions

Full-Stack, Web/App Dev (Android/iOS), ML, OS, Algorithms, System Design, Multivar. Calculus, Linear Algebra

### Personal Skills

Problem Solving, Creativity, Organization Skills, Leadership, Motivation, Time Management, Optimism

### Hobbies

Snowboarding, hiking, figure skating, piano, youtube channel. I love exploring what the world has to offer and getting good food and personal connections on the way!