

# ALEX LI

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## RELEVANT SKILLS

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- **Programming Languages:** Python, C/C++, assembly, Java, JavaScript, TypeScript, Verilog, SQL, HTML, CSS
- **Frameworks/Libraries:** Flask, Express, Node, React, Spring, PyTorch, NumPy, Matplotlib, pandas
- **Technologies:** Linux, Git, CMake, SQLite, MariaDB, FPGA, Google Cloud Platform
- Writing descriptive, industry-level documentation, developing full-stack applications using iterative design principles, and collaborating in fast-paced environments under strict time constraints.

## EDUCATION

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**University of Washington**, Seattle, Washington  
B.S., Computer Science

Expected June 2027  
GPA: 3.7

**Relevant Coursework:** Discrete Mathematics, Software Design and Implementation, Linear Algebra, Data Structures and Parallelism, Hardware/Software Interface, Systems Programming, Digital Circuit Design, Machine Learning, Distributed Systems (Spring 2025), Data Management (Spring 2025)

**Awards/Achievements:** **1st Place** (Synergy Track) at DubHacks 2023, **1st Place** (Best Web App) at HackTJ 10.0, Dean's List (Academic year 2023-24)

## RELEVANT EXPERIENCE

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**Chewy, Inc.**

June 2025—Aug. 2025

*Software Engineering Intern*

- Incoming Software Engineering Intern

**UW Sensor Systems Lab** | *FPGAs, Verilog, Python*

Dec. 2024—Present

*Undergraduate Research Assistant*

- Develop software to control FPGA signalling for hardware interfacing in applications for acoustic levitation
- Write code to serialize and de-serialize phase angle data, synchronizing hundreds of transducers to levitate objects in mid-air
- Migrate transmission protocol from I2C to UART, leading to increased signal fidelity and ease of connectivity

**WEX, Inc.** | *Google Cloud Platform, Google APIs, Flask, REST API*

Sept. 2022—May 2023

*Software Engineer Intern*

- Built an internal chat-bot to streamline meeting scheduling using Google Chat and Google Calendar REST APIs
- Documented code following best practices for implemented features, streamlining maintenance and future development efforts
- Deployed application on Google Cloud's App Engine for real time data processing and interactivity

**George Mason University** | *PyTorch, NumPy, Matplotlib, pandas*

July 2022—Aug. 2022

*Deep Learning Research Intern*

- Empirically investigated a novel machine learning optimizer, Sharpness Aware Minimization
- Implemented the Sharpness Aware Minimization and Stochastic Gradient Descent optimizers and trained/tested models on the CIFAR-10 image classification data set
- Published abstract in George Mason's student research journal

## PROJECTS

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**Conscious Capital** | *Flask, HTML, CSS, NumPy, pandas*

*Project Github:* <https://github.com/AlexXLi12/ConsciousCapital>

- Developed Conscious Capital, a web app that constructs personalized stock portfolios based on sector preferences, companies' social values, and risk tolerance.
- Collaborated with three teammates to deliver MVP in a 24-hour time frame, iterating on features and designing multiple times.
- Won the Best Web App Award out of almost **50** teams in the category at HackTJ 10.0, Thomas Jefferson High School's annual hackathon.

**333gle** | *C/C++, Networking*

- Built a **multithreaded** HTTP server from scratch in C++ using sockets, threads, and file I/O.
- Handled concurrent static file serving and search queries via a custom-built query processor with minimal latency.
- Optimized query performance by implementing memory-safe data structures in C to index and cache file metadata.