

# HUGH MARCH

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## EDUCATION

### University of Washington

Sep 2021 - Jun 2025

B.S. Computer Science *GPA: 3.83*

*Seattle, WA*

Relevant Coursework: Algorithms, Data Structures & Parallelism, Databases, Distributed Systems, Datacenter Systems, Systems Programming, Software Design & Implementation, Computer Vision, Machine Learning

## EXPERIENCE

### Software Engineer Intern

Oct 2023 - Present

*Xemelgo*

*Remote*

- Transitioned to the IoT backend team, wrote 7 end-to-end acceptance tests with AWS Lambda and graph queries in AWS Neptune, boosting sensor ingestion pipeline test coverage by 80%.
- Spearheaded a solution to un-default existing digestion workflows using DynamoDB transactions, enabling deployment to customers contributing to 30% of company revenue.

### Software Engineer Intern

Jun 2023 - Sep 2023

*Xemelgo*

*Bellevue, WA*

- Worked on the frontend team, built a smart manufacturing solution via React, Zebra Browser Print, and DynamoDB to reprint damaged RFID tags, utilized by 2 manufacturers in 2 weeks.
- Migrated RFID tag printing from REST to AWS AppSync APIs with a 500% speed increase fetching tag data.
- Prototyped a Camera+RFID sensor fusion solution with Tensorflow and OpenCV for real-time labor tracking, providing savings of up to \$2k per employee per year.

### Undergraduate Research Assistant

Sep 2021 - Dec 2023

*Posner Research Group*

*Seattle, WA*

- Developed a mobile app to monitor HIV viral load using Java, OpenCV, and CameraX APIs, achieving accuracy on par with a \$50,000 microscope for low-resource diagnostics.
- Trained a computer vision & random forest regressor ML model with Numpy, Pandas, and scikit-learn, increasing clinical range of measurable HIV viral loads by 30x.
- Co-authored a publication for contributing to an HIV assay costing 100x less than traditional methods.
- Selected among the top 10% of applicants for the Mary Gates Research Scholarship, presented work at the UW Undergraduate Research Symposium.

### Teaching Assistant

Jan 2023 - Dec 2023

*Paul G. Allen School of Computer Science & Engineering*

*Seattle, WA*

- Taught sections of 20 students in Java Computer Programming twice a week, topics include algorithms, recursion, trees, backtracking, and polymorphism.
- Graded student work, communicated with instructors, held weekly office hours for courses of over 500 students.
- Presented course projects to a combined course staff of 100 to help prepare teaching assistants for office hours.

## PROJECTS

### Cloud Microservice Application

Dec 2023

- Implemented a scalable, microservice-based restaurant review service using Go, gRPC, and protocol buffers.
- Orchestrated sharding for each microservice using Kubernetes, increasing maximum throughput by 1000%.

### DubMaps

Oct 2022

*DubHacks Hackathon*

- Designed a web-based navigation app using React, Google Cloud Platform, Google Maps API, and Firebase to find wheelchair-accessible routes between UW campus buildings.
- Won Best Use of Google Cloud from among over 100 hackathon teams.

### Hardl

Jul 2022 - Aug 2022

*hardl.net*

- Developed and marketed a more challenging version of Wordle in React, reaching over 100 monthly users.

## SKILLS

Programming Languages:	Java, Python, TypeScript, JavaScript, C, C++, Go, SQL
Tools/Frameworks/Methodologies:	React, Jest, AWS, REST APIs, Android Application Development, Git, Agile Software Development, OpenCV, Numpy, Pandas, Kubernetes