

Sean Liu

(206) 930-0800 | seanl26@uw.edu | [linkedin.com/in/sohyliu](https://www.linkedin.com/in/sohyliu) | github.com/seanl26

EDUCATION

University of Washington

B.S. Informatics: Data Science, Software Engineering | Minor in Business

Seattle, WA

June 2027

EXPERIENCE

Software Engineer Intern

Jun - Sept 2025

LightSys Technology Services

Colorado Springs, CO

- Developed a recurrent **LSTM autoencoder** in PyTorch to **automate anomaly detection** across **4.6M+** security logs, enabling customizable threshold tuning and log filtering through efficient batch processing
- Built a **preprocessing pipeline** to parse raw logs into sequential model input via **embeddings and vectorization**, while handling vocabularies of **2,000+ unique tokens** for certain log fields
- Contributed **~850 lines of modularized code** supporting end-to-end unsupervised training, inference, and evaluation workflows, improving security and maintainability

Information Technology Team Member

Jan – Jun 2024

UW E-Truck Club

Seattle, WA

- Authored and distributed an **11-page installation manual** for PTC Creo CAD software, used by **50+ club members** across **5 engineering subteams**
- Gained exposure to **Spiceworks** IT ticketing, basic virtual machine setup in **Proxmox**, and use of **Webflow** for website creation and hosting
- Maintained and shared IT documentation using **Microsoft OneNote** and **Teams**, organizing meeting notes, setup guides, and action items to improve accessibility

PROJECTS

Marathon Performance Analysis

Jun 2025

Python, Pandas, NumPy, Altair, Jupyter

- Cleaned and merged **250K+** marathon records across **350 years**, analyzing trends by year, event, age, and gender
- Created **interactive visualizations** through **Altair** displaying the impact environmental factors such as temperature and humidity on marathon performance

Data Analytics Dashboard – English Cafe

Mar 2025

TypeScript, Angular.js, GraphQL

- Implemented a **data analytics dashboard** to monitor student metrics for an online English tutoring platform with **150+ active users**
- Built real-time interactive charts in **TypeScript/Angular.js** to visualize student attendance and retention rates
- Utilized **GraphQL** and **Hasura** to query platform data and optimize database requests and retrieval speeds

PetRetreat

Sept – Dec 2024

React.js, HTML/CSS, Firebase

- Developed a responsive **React.js** web application to connect pet owners with local caretakers, implementing **Firebase Authentication** for secure user login
- Utilized Firebase to store caretaker profiles, booking requests, and user reviews, supporting **50+ simulated accounts** during testing

Bincredible – DubHacks Hackathon

Oct 2024

React Native, Flask, Figma

- Collaborated with a team of 4 to develop a mobile app for waste classification using **YOLO object detection** and **LLM-based description generation**.
- Designed and prototyped app interfaces in **Figma**, then implemented key **React Native** components to deliver a functional prototype during a 24-hour hackathon.

TECHNICAL SKILLS

Languages: Python, Java, C++, C, JavaScript, TypeScript, HTML/CSS, SQL, R

Frameworks & Libraries: React.js, React Native, Next.js, Node.js, Express.js, Angular.js, PyTorch, TensorFlow, Flask, Pandas, Altair, Seaborn, Matplotlib

Developer Tools: PostgreSQL, MySQL, GraphQL, MongoDB, Firebase, Git, Microsoft Azure, AWS, Linux, Figma