Sewon Sohn

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Education

University of Oregon, Eugene, OR (Sep 2021 – Jun 2025) | Bachelor of Science in **Computer Science;** GPA: 3.7

University of Sheffield, Sheffield, UK (Sep 2023 – Jun 2024) | Exchange Program

Relevant Courses: AI for Networking and Security, Software Engineering, Software Testing, Intelligent Web, Software Reengineering, Data Structures, Algorithms, Operating Systems, Linear Algebra

Skills

Programming Languages: Python, C, JavaScript, HTML, CSS
Frameworks/Libraries: Flask, Node.js, Express, Bootstrap, OpenCV
Tools/Technologies: Docker, Docker Compose, Git, MongoDB, PostgreSQL, Socket.IO, RESTful APIs, Ollama, FAISS, nomic-embed-text, Streamlit

Experience

Learning Assistant, Computer Science Department, University of Oregon (Sep 2022 – May 2023)
- Hosted weekly office hours to clarify **C/Unix/data structures** concepts and assist students with coding assignments
- Coordinated with instructors to evaluate student feedback and improve course structure

Marketing Director (iNight) & Executive, International Student Association, University of Oregon (Jan 2022 – Jun 2023)
- Coordinated team operations and marketing strategies for a campus cultural event that sold out with 200+ attendees
- Boosted Instagram engagement and brand consistency, growing followers by ~300 in 8 months

Projects

Local RAG Assistant (2025 – Present)
- Initiated as a solo follow-up to a professor-selected team exploring AI-assisted software development tools
- Developing a fully local Retrieval-Augmented Generation (**RAG**) demo to solidify core understanding of LLM pipelines
- Using **Ollama**, **FAISS**, **nomic-embed-text**, and **Streamlit** to process markdown-based university data, generate vector embeddings, and enable local Q&A with **Mistral**

Eco-CI Integration Project (2025)
- Worked with **Intel** engineers to reduce the carbon footprint of CI/CD pipelines by integrating Eco-CI, an open-source GitHub Action for energy and emissions tracking
- Automated the Eco-CI integration and applied it across 10+ GitHub workflows by developing a Python script using **ruamel.yaml**, storing the results in a **PostgreSQL** database via **PostgREST**

Class Schedule Planner, QuackHacks (24-hr Hackathon, 2025)
- Developed a **Flask** web application to identify common free time between uploaded HTML class schedules, using **BeautifulSoup** for parsing
- Collaborated in a five-person team, using **Cursor** for AI assistance and **Git** for version control

Petition Digitization App, HackUO (24-hr Hackathon, 2024) – *Honorable Mention*
- Created a full-stack application that automates text extraction from PDFs of handwritten petitions
- Implemented an image preprocessing pipeline using **OpenCV** and **PIL** to optimize scanned document quality for OCR

Plant Recognition Web Application (2024)
- Engineered a full-stack app with **Node.js, Express, MongoDB**, and **Bootstrap** for managing plant sightings, featuring user authentication and editable plant pages
- Added a real-time chat with **Socket.IO** and optimized routing to ensure smooth form handling and data flow

Brevet Time Calculator (2023)
- Built a full-stack **Flask** web app to calculate cycling checkpoint times using custom timing algorithms and real-time form updates via **Fetch API**
- Developed a **RESTful API**, stored historical data in **MongoDB**, and containerized the app with **Docker Compose** for scalable deployment