Kaiyuan Liu

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Education

2022 – 2026 **B.S. Computer Science, Unversity of Washington, Seattle**
GPA: 3.9/4.0, Honor Math Sequence, Dean's List.

Working Experience

2024.06 – 09 **Software Engineer, VecML**
VecML is a startup company that focuses on developing machine learning models for vector data. I was responsible for testing and developing fundamental machine learning library. I design and implement an algorithm helping HNSW indexing run on Disk Memory fast and efficiently.

2023 – 2024 **Teaching Assistant.** Paul Allen School of Computer Science & Engineering
Teaching undergraduate algorithm courses for in major (CSE 421) and non major (CSE 417) students.

2024.09 – 2025.05 **Research Assistant, Allen Institution**
Help doing research using Deep Learning and Reinforcement Learning to understand rats predation behavior.

Awards

2024 - 25 **Shenoy Undergraduate Research Fellowship**, Simons Foundation.

2024.09 **International Collegiate Programming Contest(ICPC) World Final Honor**

2024.05 **ICPC North American Championship** 12**th**, ICPC Foundation.

2023 - 24 **UW Winter Programming Contest Champion**, University of Washington.

2024 - 25 **CSE Award for Excellence Scholarship**, University of Washington.

Project

NLP **Facilitating Fine-grained Detection of Chinese Toxic Language**
Replicate and improve a Chinese toxic language classifier and write a poster and a report.

DL **Variational Autoencoder for Neural Data**
Implement a variational autoencoder for neural data.

Database **Vaccine Scheduler**
A scheduler system maintains vaccine volunteers and patients information using database and java.

Skills

Coding Python, Pytorch, C++, Java, Typescript, LaTeX, …

Databases Mysql, nosql, Postgresql, sqlite, Azure.

Topic Algorithm Design, ML, NLP, Computational Neuroscience.

Languages English, Chinese (Mandarin).