


Kaiyuan Liu


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Education

2022 – 2026  **B.S. Computer Science, University 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**
Using Deep Learning and Reinforcement Learning to understand rats foraging 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 12th**, 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).