

KEVIN XIAO

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EDUCATION

University of Washington

BS Computer Science and BA Mathematics *GPA: 3.88*

Seattle, WA

EXPERIENCE

Makeability Lab

Research Intern

Seattle, WA

June 2024 - Present

- Successfully designed and developed a full-stack accessibility iOS application with SwiftUI that utilizes GPT-4o multimodal capabilities and voice transcription models to support the interaction between blind or low-vision parents and their children regarding artwork
- Application prototype is currently being used for user/pilot studies with real mixed-vision-ability families. Results are promising and feedback will be used for public deployment to the app store.

Pathway Foundation

Project Lead of Digital Platform

Bellevue, WA

Aug 2020 - May 2023

- Led a team of 6 other interns in the design, creation, and maintenance of www.pathwayus.org and www.tutoring.pathwayus.org for the foundation, serving hundreds of visitors a week
- Managed a free tutoring summer camp to fight educational inequality. Built a qualified tutoring team of 16 high schoolers, designed curricula, and helped 30+ underserved students in the Greater Seattle Area

International Children's Education Association

Software Engineer Intern

Los Angeles, CA

June 2023 - Nov 2023

- Built a web application to help youth chess players around the world learn tactics efficiently and query games from all past online chess tournaments from chess.com, lichess.org, and more
- Worked with Node.js and React to design a scalable web application that uses a MongoDB database to store 300k+ chess events, games, and players

PROJECTS

Triage *PerplexityAI, Next.js, SAM 2.0*

<https://devpost.com/software/triage-k7vr5n>

First-Place Winning Hackathon Project for Best Use of AI at Dubhacks 2024. A real-time disaster detection and relief tool that uses satellite imagery and computer vision to prioritize emergency response and rescue efforts. Built with Next.js framework and Python Flask backend with Intel Tiber for cloud hosting and AWS CloudFormationStack to facilitate SAM 2.0 CV model and PerplexityAI LLM.

ClinicChatBot *Flask, OpenAI API, ChromaDB*

<https://github.com/xkev/ClinicChatBot>

AI web chatbot based on a fine-tuned GPT-3.5-turbo that specializes in helping clinic website visitors. Created custom backend API to generate answers without hallucination. Designed and deployed frontend to a local acupuncture clinic that proved to support the clinic with automation and minimized costs.

CipherBot *Discord.py, Microsoft SEAL, CoinMarketCap API*

<https://github.com/xkev/CipherBot>

Data encryption Python Discord bot; deployed to 10+ servers, serving 500+ users. Emulation of mix-networks and homomorphic encryption for secure voting, motivated by improving modern election integrity.

AWARDS

First Prize Winner of DubHacks Hackathon

Major League Hacking

Won first place for "Best Use of Perplexity AI" at DubHacks, the largest Hackathon in the PNW Oct 2024

AIME Qualifier & AMC Distinction

Mathematical Association of America

Scored in the top 2.5% of AMC participants to qualify for the AIME

2021 & 2022

USACO Gold Division

USA Computing Olympiad

Achieved a perfect 1000 in the USACO Open, ranking 1st among 2449 silver division participants 2022-2023

SKILLS

Programming Languages: Python, Java, C++, C, JavaScript, HTML/CSS, Dart, Swift, SQL, Assembly
Software Development: Data Structures, Algorithms, Object-Oriented Programming, Git, Fullstack

COURSES

Data Structures and Parallelism, Hardware/Software Interfaces, Foundations of Computing, Algorithms
Software Design & Implementation, Computer Security, Machine Learning, Cryptography, Software Tools