Kevin Xiao

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EDUCATION

University of Washington

Seattle, WA

B.S. Computer Science & B.A. Mathematics | GPA: 3.91 | USACO Gold & AIME Qualifier

June 2026

Coursework: Data Structures, Algorithms, Parallelism, Hardware/Software Interfaces, Machine Learning, Software Design & Implementation, Computer Security, Systems Programming, Software Tools, Discrete Math

EXPERIENCE

Undergraduate Researcher

Jun 2024 – Present

 $Makeability\ Lab$

Seattle, WA

- Developed an accessible iOS app using SwiftUI, GPT-4 multimodal capabilities, and voice transcription models
- Enabled blind or low-vision parents to interact with their children's artwork through the application
- Deployed application for studies with real mixed-vision-ability families to evaluate usability and effectiveness
- Submitted findings to the IUI ACM conference and incorporated feedback for public deployment

Software Engineer

Apr 2024 – Present

Husky Satellite Lab

Seattle, WA

- Collaborated on the CubeSat HuskySat-2, a low-power satellite for deep space research, set to launch in 2 years
- Developed and optimized C++ star-identification and attitude estimation algorithms for lost-in-space star tracker

Software Engineer Intern

Jun 2023 – Nov 2023

International Children's Education Association

Los Angeles, CA

- Built a web app to help chess players learn tactics and query games from platforms like chess.com and lichess.org
- Developed using Node.js, React, and MongoDB to store and manage 300k+ chess events & player data efficiently

Project Lead of Digital Platform

Aug 2020 - May 2023

Pathway Foundation

Bellevue, WA

- Led a team of 6 interns in the designing, developing, and maintaining the digital platforms for Pathway Foundation
- Developed and launched pathwayus.org, the foundation's primary website, serving hundreds of visitors weekly
- Created and managed tutoring pathwayus.org, a dedicated platform for tutoring services

PROJECTS

Triage | Next.js, Flask, HTML/CSS, Perplexity AI, SAM 2, REST API, Git

October 2024

- Placed first out of 1000+ participants at DubHacks '24, the largest hackathon in the Pacific Northwest
- Developed a disaster detection and assessment tool using satellite imagery to prioritize emergency response efforts
- Built using the Next.js framework for the frontend and Python Flask for the backend
- Integrated Intel Tiber for cloud hosting and AWS CloudFormationStack to support the SAM 2 CV model

ClinicChatBot | Flask, OpenAI API, ChromaDB

July 2023

- Fine-tuned GPT-3.5-turbo chatbot to specialize in helping clinic website visitors
- Created custom backend API using Retrieval Augmented Generation to reduce hallucination
- Designed and deployed frontend to a local acupuncture clinic to automate processes and minimize costs

CipherBot | Discord.py, Microsoft SEAL, CoinMarketCap API

August 2022

• Discord bot with emulation of RSA, mix-networks, and homomorphic encryption deployed to over 500 users

TECHNICAL SKILLS

Languages: Python, Java, C++, C, JavaScript, TypeScript, HTML/CSS, Swift, SQL, MQL, Assembly Frameworks: Node.js, React.js, Next.js, Express.js, Flask, SwiftUI, Flutter, Bazel, FastAPI, JUnit

Developer Tools: Git, Linux, Amazon Web Services, Google Cloud Platform, Microsoft Azure, Docker, TSLint

Concepts: Machine Learning, Object-Oriented Programming, Human-Computer Interaction, Data Science, Software Engineering, Web Frameworks, Databases, Full stack, Frontend, Backend, Cloud Computing, Cybersecurity, Robotics, Parallel Programming, Virtual Memory, Multithreading, REST API, Statistics, Probability, Natural Language Processing