

# Fiona Peng

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## EDUCATION

### University of California, Los Angeles (UCLA)

B.S. Computer Science | 3.98 GPA (Dean's Honor List)

Los Angeles, CA

Expected June 2027

- **Relevant Coursework:** Data Structures & Algorithms, Operating Systems, AI, Databases, Computer Organization, Linear Algebra, Discrete Mathematics, Statistics
- **Awards/Honors:** Upsilon Pi Epsilon (CS Honor Society), Regeneron STS 2023 Scholar, MIT Math Prize for Girls Invitee, 3x Gold Presidential Volunteer Service Award, Association of Computing Machinery AI

University of Cambridge | Pembroke College Exchange Programme 2024

Cambridge, UK

## WORK EXPERIENCE

### Amazon | Software Engineering Intern

Seattle, WA | June 2025 – Present

- Architected and launched an end-to-end modular approval system in Amazon's payments platform (**React**, **TypeScript**, **Java**, **AWS UI Polaris**), boosting transaction efficiency by **20%** and streamlining deployment through CI/CD pipelines.
- Built a **Next.js SSR** backend service delivering structured payment data on order pages, cutting **~300K** annual support contacts and streamlining post-purchase reconciliation for millions of transactions.

### End Overdose | Full Stack Developer

Los Angeles, CA | Oct 2024 – June 2025

- Developed a full-stack education platform using **Next.js**, **Node.js**, **Firebase**, and **Tailwind CSS**, adopted by **15+ LA schools** to teach overdose prevention to **1,200+ students** through interactive, gamified lessons.
- Implemented real-time progress tracking and school admin dashboards, driving **3x** higher student engagement.

### IDONTMIND | Mobile Application Developer

Los Angeles, CA | Sept 2023 – July 2024

- Engineered and deployed a personalized **React Native mobile** mental health app serving **147K+ users**, leveraging **MongoDB**, **Node.js**, **Python**, and **AWS S3** to analyze behavioral patterns and visualize trends.
- Collaborated in **agile** biweekly sprints using **Git** and **Figma** to build responsive UI and scalable backend services.

### Pioneer Research Institute | Research Intern (with Prof. Suleyman Uludag)

San Francisco, CA | Mar – Aug 2023

- Conducted research study at the University of Michigan and authored a peer-reviewed paper ([Imperfect EleGANCE](#)) on racial and gender bias in **CycleGAN**, a generative machine learning model, using **PyTorch**, **NumPy**, and **Google Colab**.
- Named Regeneron STS Semifinalist (\$4,000 award) and awarded the Pioneer Catalyst Award for research impact.

## PROJECTS

### Choreo — LA Hacks 2025 [[devpost](#)]

- Built a real-time AI dance coach with **94%** pose-matching accuracy using **React**, **Flask**, **OpenCV**, and **MediaPipe**.
- Integrated **Gemini API** for motivational feedback; designed accessible and inclusive UI for neurodivergent users.

### Heritage — Stanford TreeHacks 2024 (~7.5% acceptance rate) [[devpost](#)]

- Developed a storytelling platform for seniors using **voice-to-text technology**, fostering intergenerational dialogue.
- Designed a senior-friendly UI (React, Convex, and Vercel), integrating **Google Cloud Platform** and **GPT-4**.

### Keystroke Prediction from sEMG Signals Using Deep Learning — 2025 [[src](#)][[report](#)]

- Built and compared **CNN**, **RNN**, and **Transformer** models to predict keyboard inputs from muscle signals (sEMG), improving accuracy by **7.5%+** through architecture tuning and data augmentation techniques.

### Gardenia — LA Hacks 2024 [[devpost](#)]

- Created a gamified plant collector app with live **AI image classification** for species identification with **95% accuracy** using **Google Gemini API** alongside React Native, Expo, Node.js, Firebase, and Unity.

## SKILLS

**Programming Languages:** Python, JavaScript/TypeScript, C++, Java, SQL, MATLAB, R, HTML/CSS, Scheme

**Tools:** React, Node.js, Next.js, Docker, AWS, MongoDB, Firebase, TensorFlow, PyTorch, Linux, Tailwind, Git, Unity, Figma