

# Brandon Wong

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## EDUCATION

### University of California, Davis

Davis, CA | Expected Graduation June 2025

Computer Science, B.S. and Statistics, B.S. (Machine Learning Track)

Technology Management Minor | GPA: 3.70

**Coursework:** Data Structures and Algorithms, Advanced Deep Learning, Computer Vision, Computer Networks, Computer Architecture, Time Series Analysis, Data Science, Combinatorics, Discrete Math, Operations Management, Entrepreneurship

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## SKILLS

**General:** Mobile and Full Stack Development, Machine Learning, Databases (PostgreSQL, MongoDB), Git, Linux

**Languages:** C++, C, Swift, Python, Javascript, Typescript, Java, HTML, CSS, SQL, GraphQL, R

**Frameworks:** SwiftUI, Next.js, PyTorch, Scikit-learn, React.js, Apollo GraphQL, Express.js, Node.js, React Native

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## EXPERIENCE

### Apple | Software Engineering Intern

Cupertino, CA | June 2023 - Sept 2023

- Developed macOS Music Recognition and ShazamKit features in Swift for over 100 million monthly users
- Independently started a digital signal processing research project, developing a functional prototype
- Took initiative to pitch a new feature prototyped for an intern contest to the Health team leadership
- Learned best coding and design practices through meticulous code reviews and delivered robust code

### HackDavis | Technical Director

Davis, CA | Oct 2023 - Present

- Built [hackdavis.io](https://hackdavis.io) and [judging.hackdavis.io](https://judging.hackdavis.io) for a student-run hackathon with over 1000 attendees
- Designed and implemented an algorithm to facilitate judging and scoring, ensuring fairness in the process
- Led technical workshops, teaching SwiftUI, Next.js, and full stack web and mobile development skills

### include at Davis | Technical Product Manager

Davis, CA | Sept 2023 - Present

- Developing a content management system and an e-store framework for local clients in Davis
- Performed code reviews, enforcing industry standards to ensure site reliability and scalability
- Learned system design when architecting codebases using Next.js, Apollo GraphQL, and PostgreSQL

### AggieWorks | Software Engineer

Davis, CA | Jan 2023 - June 2023

- Built and deployed a roommate matching app called [RoomU](#) to the App Store for UC Davis students
  - Implemented database functions, image caching, and 10+ reusable and reliable UI components
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## PROJECTS

### Song Vocal Extraction ([Github](#))

PyTorch, Scikit-learn, and Librosa

- Trained a deep convolutional U-Net to isolate song vocals using spectrograms, producing a research report
- Currently implementing a transformer based variant, and deploying the model to a website using Flask

### Deep Learning Projects ([Github](#))

PyTorch

- Made modifications to nanoGPT to improve performance and runtime, gaining a deep understanding of LLMs
- Finetuned a vision transformer model, then performed knowledge distillation to improve a student model

### Shazam Social ([Github](#))

SwiftUI, Realm, and MongoDB

- Developed a social media app with MVVM architecture for users to share Shazamed songs
- Implemented user authentication, a custom map, and a versatile cached image component

### ShoppR ([Github](#))

SwiftUI, Node.js, Express.js, Realm, and MongoDB

- Developed a shopping list app using text recognition to scan price tags, creating a purchases API