

Minh Nguyen

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EDUCATION

University of California, Davis
BS in Computer Science, GPA: 3.6

Expected Graduation: Jun 2025
Davis, CA

WORK EXPERIENCE

Google Developer Student Club (GDSC)

Jan 2025 – May 2025

Task Tree Lead Developer

Davis, CA

- Led a team of **4 developers** to build **Task Tree**, a web-based productivity app using **Next.js**, **Firebase**, and **Tailwind CSS**, designed for student task management and academic tracking.
- **Designed a real-time task tracking system** using **Firebase Firestore** and integrated **Gradescope & Canvas APIs**, enabling **automated grade tracking** and reducing **manual input time for students by 60%**.
- Managed **Agile sprint planning**, **feature development**, and **code reviews**, ensuring **efficient collaboration** and **timely feature deployment**.

Life of Kai

Sep 2024 – Feb 2025

Full-Stack Developer

Davis, CA

- Developed a **social media iOS app** for pet owners using **Swift**, **Firebase (Auth, Realtime DB, Storage)**, and **Google Maps API**, allowing users to create pet profiles, log sightings, and chat securely.
- Implemented **secure user authentication** with **Firebase** and integrated **CocoaPods libraries** to **streamline dependency management**.
- Optimized data structure and querying in **Firebase Realtime Database**, **reducing read latency by 20%** and **improving app responsiveness** across low-bandwidth scenarios.

PROJECTS

EMA: Capstone Project | *Secure Communication Platform*

React | Express | MongoDB

- Built a full-stack, **end-to-end encrypted messaging platform** with **React**, **Node.js**, **Express**, **Socket.IO**, **MongoDB**, and **WebRTC**, supporting secure real-time chat and video calls.
- Implemented **client-side encryption** using **Web Crypto API** and **TweetNaCl**, with asymmetric key exchange and **AES-GCM** for symmetric encryption, ensuring messages are never exposed to the server.
- Designed the **Express/MongoDB backend** as a **zero-trust relay**, handling message routing, WebRTC signaling, and public key storage without accessing plaintext data.

An-Album-A-Day | *AI-Powered Music Recommendation System*

Next.js | Flask | PostgreSQL

- Developed a **machine learning-based music recommendation system** using **Scikit-learn & TensorFlow**, achieving **Precision@10: 0.87**.
- Built a **Flask API and PostgreSQL backend**, integrated with **Next.js frontend** to enable **personalized song and album recommendations** with **real-time requests handling**.
- Optimized performance by **containerizing the API with Docker** and deploying on **AWS EC2**, reducing potential **latency by 30%** under expected load conditions.

Wildfires: Predicting the Cost | *Machine Learning Model*

Scikit-learn | TensorFlow | Python

- Developed **machine learning models** using **Python**, **Scikit-learn**, and **TensorFlow** to predict **wildfire size, duration, causes, and financial damage**, achieving **73% accuracy** in cause prediction.
- Integrated **environmental factors** like **temperature, precipitation, and geography** to enhance model performance, aiding in **wildfire response planning and resource allocation**.

SKILLS

- **Languages:** C++, Java, JavaScript (Node.js, React), Python, Swift, Go, SQL, HTML, CSS
- **Frameworks and Libraries:** Next.js, Node.js, Express, Firebase, SwiftUI, TensorFlow, Scikit-learn
- **Tools & Cloud:** Docker, AWS (EC2, S3), Firebase Firestore, RESTful APIs, Git, GitHub
- **Developer Tools:** VSCode, Jupyter Notebook, CI/CD, Agile (Scrum)