

Thanh Dat Vu

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EDUCATION

California State University of San Marcos

May 2027

Bachelor of Science in Software Engineering, Minor in Data Science

GPA: 3.92/4.00

- **Honors & Awards:** Dean's List (All Semesters), International Student Merit Scholarship, Academic Excellence Award

EXPERIENCE

Microsoft

Sep 2026 – Dec 2026

Incoming Software Engineer Intern - Azure Security Team

Redmond, WA

Robinhood

May 2026 – Aug 2026

Incoming Software Engineer Intern - Data Platform Team

Menlo Park, CA

Qualcomm

Jan 2026 – Apr 2026

Software Engineer Capstone Co-op

San Diego, CA

- Architected **Alvion**, a CV Android app for Snapdragon devices that uses **Kotlin**, **Jetpack Compose**, **CameraX** and **Qualcomm Facial-Detection** model to monitor driver drowsiness and distraction, delivering alerts to improve road safety
- Engineered a multi-step calibration protocol to establish baseline head-pose vectors, resolving inaccuracies from **variable mounting angles** and increasing the precision of mirror-glance detection by **30%** during real-world driving tests
- Trained a custom **TFLite** classifier model using Python and MobileNetV2 to detect **sunglass occlusion**, resolving the **data ambiguity** between eye-closure and eye-occlusion to reduce false-positive alerts by over **45%**

Johnson & Johnson MedTech

Jun 2025 – Aug 2025

Software Engineer Intern

Jacksonville, FL

- Engineered **ArgoCD-based GitOps infrastructure** on Ubuntu VM to manage deployments for **50+ K3s clusters**, ensuring reliable continuous delivery while **saving 20+ hours** of manual deployments each week
- Architected **Jenkins CI pipelines** for **250+ applications** to automate testing and Docker image builds, cutting integration cycles **from 1 hour to 20 minutes** and accelerating delivery for 17 engineering teams
- Prototyped a full-stack Python/FastAPI application to **stream 1,000+ industrial images/day** to training servers for defect detection algorithms, enhancing **quality control for 3B+ contact lenses** annually

ChakraTech

Jun 2024 – Aug 2024

Software Engineer Intern

San Diego, CA

- Built a **lab report platform** for **10+ scientists** backed by **AWS infrastructure** (EC2, S3) provisioned with **Terraform** Infrastructure as Code, **digitizing reporting workflows** and **automating data collection**
- Containerized full-stack lab report platform (React frontend, Express.js backend, Firebase database) using **Docker Compose**, enabling **one-command deployment** to EC2 instances with consistent environment configuration

California State University of San Marcos

Nov 2023 – Dec 2025

Tech Community Leader & Peer Educator

San Marcos, CA

- Directed **8-member IEEE exec board** to develop professional networking programs including **Qualcomm** tours and **SHPE** conferences, raising **\$5k+ sponsorship/semester** and facilitating career connections for **50+ engineering students**
- Tutored data structure & algorithms for **1380+ students** using **Python**, collaborated with the course professor to grade 500+ programming assignments, **improving average exam scores** by 35%

PROJECTS

0KM 📱 | Expo, React Native, TypeScript, Supabase, PostgreSQL, Node.js, NativeWind

Apr 2025 – Jul 2025

- Led team of **4 engineers** building **mobile app empowering long-distance couples** through real-time shared experiences
- Leveraged **Clerk** for Google Authentication and **Cloudinary** for photo and video upload in shared memories entry
- Designed backend using **Node.js/Supabase** with MVC pattern, developing **40+ RESTful APIs** for core features (auth, profile, onboarding, library, entries), enabling seamless app functionality with **robust CRUD operations**
- Spearheaded frontend development from **Figma** design mockups to production code, implementing responsive UI with **NativeWind** across core app features and delivering intuitive UX that enhanced user engagement
- Led agile workflow across **40+ user stories**; awarded **Technical Titan** among 6 SWE teams for shipping **63 features**

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, TypeScript, SQL, HTML/CSS, Java, Golang

Frameworks & Libraries: React, Next.js, Expo, React Native, Express.js, Tailwind CSS, NativeWind, Jest, React Testing Library

Tools & Services: Git, Linux, Terraform, Docker, Kubernetes, ArgoCD, AWS, GCP, Azure, Node.js, Postman, VS Code, Jupyter

Databases: MySQL, PostgreSQL, Supabase, DynamoDB, Firebase

Concepts: Object-Oriented Programming, Generative AI, System Design, DevOps, CI/CD, Cloud Architecture, RESTful APIs