

Khai (Jack) Nguyen

contact@khainguyen.dev | linkedin.com/in/khaipnguyen | github.com/blu3eee | khainguyen.dev

EDUCATION

California State Polytechnic University, Pomona
Bachelor of Science in Computer Science

August 2022 – December 2024 (Expected)

EXPERIENCE

Software Engineer

June 2024 – Present

SIMMS Solutions

Remote

- Engineered API server using **Docker**, **AWS ECS**, and Hono.js to integrate multiple **Business Support Systems** (BSS) and payment providers across diverse Mobile Virtual Network Operator (MVNO) configurations with different requirements, handling **45,000+ requests** during peak hours with **100% up time**.
- Spearheaded and developed the integration of **Stripe APIs** with existing payment and subscription infrastructure, empowering end users' abilities to self-manage their plans, renewals, and cancellations, while **significantly reducing customer support costs** for multiple MVNOs.
- Developed and delivered white-label solutions for **Telecom Industry** clients, encompassing **responsive websites** with NextJS and **cross-platform mobile apps** using Expo/React Native.
- Optimized site performance** for better user experience with NextJS layout, UI Streaming, lazy loading, and Server Side Rendering, reducing pages' bundle size by **15-60%**.
- Collaborated effectively with team members, UX designer, stakeholders, and project managers to deliver products ahead of schedules, resulting in an **83% improvement in product delivery time**.
- Engineered internal tools for API testing and documentation to help streamline the development process.

PROJECTS

Northrop Grumman Autonomous Rescue Vehicle Research

June 2024 – Present

Ground Station Control - User Interface Lead

Cal Poly Pomona

- Collaborated to architect a **multi-window desktop application** with a bi-directional state synchronization between **Rust** layer with Vue.js/TypeScript UI layer using **Tauri** commands and events.
- Refactored the existing **Vue+Tauri** frontend codebase using **Typescript** and **Rust**, adopting shadcn UI headless components and TailwindCSS for improved code organization, maintainability, and scalability.
- Restyled the application's user interface using TailwindCSS, implementing a theme-based styling approach for **enhanced visual consistency and flexibility**.

Discord Bot Dashboard (Personal Project) | NextJS, SQL, Docker, AWS EC2, Nginx

- Developed responsive dashboard used by 26 discord servers to manage **16,000+ members**.
- Implemented caching strategies for non-personal data, **reducing API usage by 40%**.
- Self-hosted MySQL server on AWS EC2, **reducing cloud database costs by 80%** with Docker container.
- Integrated **CI/CD pipelines** for automated code linting, formatting, and testing using GitHub Actions.
- Configured secure cross-domain communication and DNS for 4 subdomains hosting 4 micro-services by using **AWS Elastic Container**, **Cloudflare**, and NGINX with Docker network.

Let's Mesh (Open Source) | React, Django, SQL, Docker

- Implemented comprehensive test cases** for all developed endpoints, ensuring consistency with backend standards (error handling, response status codes, etc.)
- Spearheaded the use of **Docker** for development with Redis, MySQL, and fullstack containers.
- Developed real-time messaging feature using Django Channels, Redis, and WebSockets.

BroncoDirectMe (Open Source) | React, Material-UI, Typescript, Python, Docker, SQL

- Collaborated on a **web extension** helping class registration for over **400 Cal Poly Pomona students**.
- Engineered course search feature allowed users to find available classes within the extension.
- Developed formatting scripts for school data spanning 250 majors and 3,629 courses in 4 recent years.
- Spearheaded development of bottom navigation bar, enhancing user experience and seamless navigation.

TECHNICAL SKILLS

Languages: Typescript, Javascript, Rust, Python, HTMX, HTML/CSS, Bash, Swift, Dart, Java, C++, SQL

Frameworks: React, Node.js, Next.js, Vue.js, NestJS, ORM, TailwindCSS, Flutter, Django, PyTorch, Stripe

Developer Tools: Git, GitHub, Google Cloud, Linux, AWS, Docker, Google Cloud Platform, Jira