

Patrick Nguyen

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EDUCATION

University of California Davis
Bachelor of Science in Computer Science

Davis, CA
June 2025

EXPERIENCE

eleven8 | Software Engineer Intern

Mar 2025 – Oct 2025

- Architected and launched an internal tool for invoicing, payroll, and streamlining workflows, supporting \$25M+ in annual revenue
- Developed an automated invoicing and payroll system for 30K+ employees using Go, PostgreSQL, Stripe webhooks, and Gmail API, cutting processing time by 60–70%
- Secured production infrastructure on AWS (RDS, Cognito, EC2, S3, ECS) and GCP (Gmail OAuth), containerized services with Docker, and ensured fault-tolerant deployments

Innovation and Research Lab at Davis | Software Engineer

Oct 2024 – June 2025

- Designed and implemented a multi-schema relational database architecture with partitioning & indexing to optimize performance for over **10 million rows**, leveraging psycopg2 and PostgreSQL
- Engineered over 25 endpoints for a **RESTful** API for Davis Unitrans, Amtrak, and TAPS data using Prisma ORM, with API key authentication on AWS EC2
- Mentored **50+** students during Hack Nights, guiding project architecture and implementation

AggieWorks | Software Engineer

Sept 2024 – June 2025

- Shipped products serving over **38,000** students in an Agile environment, ensuring scalable & reliable solutions
- Achieved **50%** reduction in data processing time by containerizing a web scraper with **Docker**
- Reviewed pull requests & maintained CI/CD pipelines with **GitHub Actions** reducing deployment errors by **20%**

Icarus Development | Software Engineer Intern

June 2024 – Sept 2024

- Reduced manual transcription by **6 hours** weekly, automating lecture transcription via Canvas integration
- Built a scalable **AWS S3**-based distributed data pipeline, ensuring secure & efficient video transcription storage
- Implemented secure authentication & efficient query handling to support over **100** transcription requests per day

PROJECTS

Statify | React, TanStack Query, Node.js, AWS, Docker

Oct 2024 – Jan 2025

- Built Statify, a Spotify API-powered web app for personalized playlist generation alongside displaying a user's top Spotify stats over different time periods with a personalized recommender feature
- Designed custom playlist cover images generated based on color gradients that reflect the playlist's mood
- Optimized API performance with **TanStack Query** by caching data & reducing redundant API requests
- Deployed a Node.js backend in a Docker container on AWS EC2, configuring Traefik as a reverse proxy to route HTTP and HTTPS traffic following the TCP/IP protocol

AggieMenus | Next.js, Docker, Python, PostgreSQL

Sept 2024 – Mar 2025

- Developed AggieMenus, a web app centralizing UC Davis dining commons menus to simplify browsing & switching between dining hall locations, dates, & meal times, with a peak daily user count of **2000** users
- Enhanced user experience by developing intuitive food filters & a favorites feature with post notifications, resulting in a **40%** increase in user engagement & significantly boosting user retention
- Introduced cross-platform compatibility by integrating Supabase Edge Functions with Capacitor, enabling access on iOS and Android devices, reaching **300+** new daily active users

TECHNICAL SKILLS

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

Frameworks: Express, React, Node.js, Tailwind, FastAPI, Django, Flask, Angular, Gin

Engineer Tools: Git, Docker, AWS (Lambda, EC2), GitHub Actions, Kubernetes, Prisma, TanStack Query, Terraform

Databases : PostgreSQL, Supabase, Firebase, MongoDB, AWS (S3, RDS, Glacier), Redis