

# Tinh-Phong Nguyen

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## SKILLS

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**Languages:** JavaScript, TypeScript, Java, Python, C, SQL, HTML/CSS, RISC-V Assembly, Racket, Golang  
**Libraries/Frameworks:** React, Node.js, Electron.js, Express.js, Next.js, Angular, Spring, Unsloth, Tensorflow  
**Databases:** MySQL, PostgreSQL, MongoDB, Prisma  
**DevOps:** Docker, AWS, Nginx, Web Sockets  
**Tools & Others:** Git, Postman, SPHERE Research Infrastructure, REST API

## EXPERIENCE

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### SPHERE Software Engineering Intern

June. 2025 – Present

*USC ISI SPHERE*

*Marina Del Ray, CA*

- Developed a full-stack calendar and heatmap system with React, PatternFly, and TypeScript, saving teams 10+ hours of manual scheduling per week and supporting 200+ monthly reservations
- Modernized the Distributed Experiments Workflow (DEW) portal by migrating authentication to SPHERE's internal account system, refactoring the Angular + TypeScript frontend, and containerizing the Flask backend with Docker to ensure stable API operations and full-stack reliability
- Integrated the DEW portal with the SPHERE Research Infrastructure, centralizing experiment creation, reservations, and XDC management into a unified platform to improve research data traceability for researchers

### Full-stack Software Engineering Intern

June 2024 – May. 2025

*4yourbusiness INC.*

*Pleasanton, CA*

- Deployed a scalable inventory management platform with React, Electron, and MySQL that automated product data updates, eliminating manual processes and saving staff 2+ hours per day
- Updated inventory infrastructure by transferring 1,000+ product records from Microsoft Access to MySQL, employing validation and de-duplication strategies to strengthen data accuracy and long-term scalability
- Engineered the company's primary marketing website using Next.js, React, TypeScript, and Tailwind CSS, implementing responsive UI design and integrated email workflows to improve customer engagement

### Software Developer

Dec 2024 – May. 2025

*Cal Poly — AI For Search & Rescue*

*San Luis Obispo, CA*

- Collaborated with a team to design and develop a web application using React, Node.js, and Firebase, digitalizing search and rescue operations and leveraging AI models to improve search accuracy and efficiency
- Adapted a React-based dashboard to visualize AI-predicted clue locations, enabling search and rescue teams to analyze incident data efficiently in the command post

## PROJECTS

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### HorseGPT

Feb. 2025 – June 2025

*AI Horse Race Predictor*

*San Luis Obispo, CA*

- Trained a Gemma 3 model with LoRA fine-tuning on 200,000+ horse races (1990–2020) using Torch, Unsloth, and Pandas, reaching 60% prediction accuracy which outperforms baseline guessing rates
- Leveraged Cal Poly's Unix server GPUs to train and run our LLMs in GGUF format, cutting training time by 40% and reducing inference latency to sub-second prompt responses

### Aery

Sep. 2024 - Dec. 2024

*Collaborative Motivation Streaks App*

*San Luis Obispo, CA*

- Built a full-stack social media app (TypeScript, React, Next.js, Docker, PostgreSQL), enabling students to track and share daily streaks and habits within friend groups
- Integrated a secure authentication system using Zod for input validation, NextAuth.js for session management, and custom middleware to enhance security

## EDUCATION

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### California Polytechnic State University

San Luis Obispo, CA

*Bachelor of Science in Computer Science — GPA: 3.81*

*June 2026*

- Relevant Coursework: Operating Systems; Artificial Intelligence; Theory of Computation; Distributed Systems, Networks and Parallel Computing; Computer Security; Databases; Programming Languages; Software Engineering; Algorithms; Data Structures; Computer Organizations; Object-Oriented Programming