

Thomas Nguyen

(737) 245-4267 | thomaswn@uci.edu | linkedin.com/in/thomxsnguyen5 | github.com/thomxsnguyen

EDUCATION

University of California, Irvine
Bachelor of Science in Computer Science

Expected June 2027
GPA: 3.8

EXPERIENCE

Software Engineer Intern
SportsStake

June 2025 – Sept 2025
Los Angeles, CA

- Engineered core fantasy-sports modules in Flutter/Dart, enabling lineup management, trading, and dynamic team customization features used by over 10,000 users.
- Architected and deployed a Node.js and PostgreSQL backend on AWS EC2, containerized with Docker and automated via GitHub Actions CI/CD, reducing manual deployment overhead by 70%.
- Implemented Redis caching and API batching to cut response latency by 40% and reduce server costs, while integrating Firebase Authentication with secure role-based access control (RBAC) to enhance security and streamline user management across platforms.

Software Developer Intern
Boundary Remote Sensing Systems

June 2024 – Sept 2024
Los Angeles, CA

- Developed a modular front-end framework in React and TypeScript, enhancing maintainability and scalability of geospatial visualization interfaces for environmental monitoring.
- Built an Express.js REST API for asynchronous data ingestion and transformation of NetCDF4 geospatial datasets, improving data retrieval speed by 35%.
- Automated backend parsing and cleanup pipelines in collaboration with Python services, increasing system reliability and reducing manual intervention in data workflows.

Machine Learning Research Assistant
California Institute for Telecommunications and Information Technology (Calit2)

Oct 2024 – Present
Irvine, CA

- Developed end-to-end Python data pipelines for preprocessing and feature extraction from Finite Element Method (FEM) simulation datasets used in machine learning model training.
- Optimized PyTorch GRU, LSTM, and RBF-RNN architectures for real-time thermal behavior prediction, achieving a threefold improvement in model stability and inference throughput.
- Benchmarked and refactored model deployment workflows, reducing inference latency from minutes to seconds through vectorized computation and GPU acceleration.

PROJECTS

CloudBoard | *React, Node.js, PostgreSQL, Docker, AWS, GitHub Actions*

- Developed a real-time team collaboration platform enabling task creation, assignment, and live progress tracking through WebSockets and state synchronization.
- Built secure RESTful APIs with Express and JWT authentication, supporting multi-user access control and persistent project sessions across devices.
- Configured Docker-based containerization and automated CI/CD pipelines on AWS EC2 using GitHub Actions, reducing deployment time by 70%.

RouteCrafter | *React, Node.js, PostgreSQL, Docker, AWS, Redis*

- Engineered a full-stack logistics application that calculates and visualizes optimal delivery routes using live traffic and weather API integrations.
- Implemented Dijkstra's algorithm with dynamic route batching and distance weighting to minimize total travel time and fuel consumption.
- Deployed containerized microservices on AWS EC2 with Redis caching and continuous integration workflows, cutting route recomputation time by 60%.

TECHNICAL SKILLS

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

Frameworks: React, Node.js, Express, Flask, Flutter, Docker, Firebase, AWS, Redis

Developer Tools: Git, GitHub Actions, PostgreSQL, VS Code, PyCharm, IntelliJ, Postman

Libraries: pandas, NumPy, Matplotlib, PyTorch