

Mark Ruangrattham

markruangrattham@gmail.com — linkedin.com/in/mark-ruang — markruangrattham.github.io

EDUCATION

University of California San Diego

La Jolla, CA

Bachelor of Science (B.S.) in Computer Science, Minor in Economics

Sept. 2021 – June 2026

- AWS Certified Cloud Practitioner (CLF-C02)

EXPERIENCE

Full Stack Software Engineer

Mar. 2025 – Present

UCSD Health – Explore Career Path Program

San Diego, CA

- Engineered a full-stack application management system using ASP.NET Core, C#, SQL Server, and Entity Framework, owning backend APIs, database schema design, and role-based workflows supporting 150–200 applications per quarter.
- Designed and implemented a modular admin dashboard with database-driven email notifications and dynamic filtering, reducing manual review time by 60% per quarterly cycle through automated status tracking.
- Modernized a legacy application portal using JavaScript, jQuery, and Razor, improving usability and reducing submission errors.

Software Engineer Intern

June 2025 – Aug. 2025

Transact Campus + CBORD

San Diego, CA

- Developed a production-grade AI chatbot platform leveraging serverless architecture (AWS Lambda, Step Functions) and AWS Bedrock, deployed across 5+ company applications and reducing support ticket volume by 30%.
- Implemented end-to-end modular multi-agent system implementing RAG (Retrieval-Augmented Generation) for knowledge base search, database queries, and document retrieval, producing technical documentation adopted by engineering teams.

Freelance Software Developer

Sept. 2024 – Present

Valhalla FC

Remote

- Designed and implemented cloud-hosted Python backend services supporting a 2,000+ member community with 99.9% uptime, including live events with 200+ concurrent participants.
- Developed automated moderation systems using MongoDB and Discord.py with full logging and admin analytics.

PROJECTS

FUTBOL DEX — Django, PostgreSQL, GCP, Docker

July 2025 – Present

- Architected a cloud-native full-stack platform using Django REST Framework, PostgreSQL, Docker, and JWT-based authentication, deployed on GCP and managing thousands of player records.
- Implemented 10+ RESTful backend API endpoints with rate limiting and role-based access control, integrated with a Discord bot and admin web dashboard.

Real-Time Auction Engine — Python, MongoDB, Discord.py

Aug. 2024 – Sept. 2024

- Engineered a real-time auction engine using Python asyncio to handle 32 concurrent clients with sub-1ms response times, replacing manual coordination during multi-day events.
- Ensured data correctness under concurrency by implementing atomic MongoDB transactions and optimistic locking, preventing race conditions with zero data loss.
- Built validation engine for budget enforcement, roster constraints, tie-breaking, and ghost bidding detection with extensive beta testing.

StudyGenius – 24-Hour Hackathon — React, Firebase, OpenAI API

Apr. 2025

- Built an AI-powered study platform during a 24-hour hackathon enabling users to upload documents (PDF, DOCX, TXT) and automatically generate flashcards using GPT-4 Turbo.
- Implemented a React frontend with Firebase Authentication and Firestore to support real-time data synchronization and persistent user sessions across devices.

TECHNICAL SKILLS

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

Frameworks & Libraries: React, Django, ASP.NET Core, Entity Framework, Firebase, JUnit, Pandas, pytest

Databases & Cloud: PostgreSQL, MongoDB, SQL Server, AWS (Lambda, Bedrock, API Gateway, S3, EC2), GCP

Tools: Git, Docker, Postman, Linux/Unix, Bash, VS Code