

Jonathan Mai

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[LinkedIn](#) | [Github](#)

EDUCATION

University of California, San Diego

Master of Science in Electrical and Computer Engineering

- Research Area: Machine Learning and Data Science

September 2025 - June 2027 (Expected)

GPA: 4.0

California State University, Fullerton

Bachelor of Science in Computer Science

August 2022 - December 2024

GPA: 3.72

WORK EXPERIENCE

Software Engineer | SimInsights

July 2025 - Present

- Engineered natural language processing pipeline using LangGraph, LangChain, and LLMs to transform conversational prompts into production VR simulations, reducing simulation creation time by 70% and implementing SQL telemetry for API cost tracking
- Implemented Bayesian Knowledge Tracing model with Gaussian distributions and expectation-maximization for parameter estimation for adaptive learning
- Refactored UI for Unity-based platform homepage and implemented lazy loading with asynchronous pagination in C# to improve initial load performance by 40%

Software Engineer Intern | PanPalz

July 2024 - July 2025

- Architected and migrated registration and authentication flow to new React Navigation system, improving code maintainability and user experience across 20+ screens
- Built component library and design system using React Native and TypeScript, establishing reusable UI patterns adopted across authentication, settings, and profile modules
- Implemented comprehensive Jest testing suite for critical user flows, improving code coverage and reducing production bugs

PROJECTS

VRRecover: Exposure Therapy in VR (Unity VR, AWS, C#, FishNet Networking, Docker)

- Worked with four other students to develop a VR exposure therapy application using Unity and C#, that enables therapists to create customizable therapy scenarios for treating phobias virtually
- Developed a serialized UI system using C# scripts to enable dynamic and customizable therapy scenarios, reducing configuration time by 50% and enabling therapists to easily design scenes without technical expertise
- Designed and implemented the DynamicUIManager, leveraging Unity's event handling and FishNet Networking to ensure synchronized and adaptive VR interactions across diverse scenes

Spotify Mood Analyzer (React.js, Tailwind CSS, Node.js, Express, MySQL, SpotifyAPI, D3.js)

- Built a Full Stack application with Spotify API integration to analyze 200+ songs, helping users track mood variations based on musical attributes such as valence and acousticness
- Utilized D3.js to design interactive graphs, improving data interpretation compared to static charts
- Reduced API data-fetching time by 25% through optimized backend processes in Node.js and Express

SKILLS

- Python, Javascript, Typescript, C#, Unity, React, React Native, Next.js, Node.js, Swift, MySQL, HTML, CSS, Docker, AWS, LangGraph, Flask, FastAPI, Pytorch, D3.js