

Mihir Ananthateerta

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EDUCATION

University of California San Diego

San Diego, CA

B.S. Computer Science, GPA: 4.0

Expected Graduation: June 2028

- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming (C++), Computer Networking, Systems Programming, Discrete Mathematics, Linear Algebra
- Achievements: USACO Gold Division, BellHacks Winner, Hyphen Hacks 3rd Place

EXPERIENCE

Software Engineering Intern – AI Solutions

Sep 2026 – Present

Cloudwick

San Francisco, CA (Hybrid)

- Developed Python APIs on AWS for document ingestion and retrieval in Cloudwick's Amorphic platform
- Implemented RAG pipelines with chunking, embeddings, and vector search to answer questions about documents
- Built agent workflows to query document collections, invoke backend tools, and return answers with sources

Software Engineering Intern – ASIC Verification

Jun 2026 – Sep 2026

Upscale AI

Santa Clara, CA

- Integrated scheduler RTL for a 144-port 800G switch ASIC into a cycle-accurate C++/Verilator test harness
- Built CI/CD pipelines for pytest and GoogleTest regressions comparing C++ switch-model behavior against RTL
- Built a traffic driver to generate realistic Ethernet workloads, exposing a scheduler fairness bug
- Accelerated Verilated simulation over 5x using profiling, LLVM BOLT, compiler tuning, and multicore execution

Embedded Systems Developer

Dec 2025 – Jun 2026

Neurotech Club

- Helped create a drone system enabling real-time flight control via EEG headset signal processing
- Replaced HTTP over Wi-Fi with ESP-NOW on ESP32, cutting communication latency by 40% to 11 ms
- Serialized and routed MAVLink command packets between ground station and flight controller

VR Application Developer

Sep 2025 – Feb 2026

Assistive Technology Club

- Built an Apple Vision Pro app using Swift and visionOS for hands-free monitoring of neonatal vital signs
- Developed real-time vital-sign visualizations and an interactive spatial interface for clinical use
- Collaborated with a UCSD medical professor and student team on a project supported by Apple

PROJECTS

Cadence | Next.js, Tailwind CSS, Gemini, TwelveLabs | cadence.mihirdev.com | [Video Demo](#)

- Built a full-stack interview platform with local video recording and instant playback across 100+ sessions
- Integrated Gemini for transcription and technical evaluation and TwelveLabs for delivery analysis and feedback
- Implemented rubric-based scoring and structured output validation for consistent, actionable interview feedback

Chess AI | C++, SDL2 | mihirdev.com/chess

- Implemented a C++ chess application with legal move generation, validation, and an SDL2 interface
- Developed an AI opponent using the minimax algorithm and optimized performance with alpha-beta pruning
- Achieved a consistent 1800+ Elo rating, placing the engine in the top 5% of online players

Healthy Messages | Python, TensorFlow, Pandas, Matplotlib

- Created an application to detect and block harmful online messages by analyzing message tone and intent
- Trained a TensorFlow-based sentiment analysis model to 90% test accuracy on 10K+ social media posts
- Integrated Instagram and YouTube APIs for real-time detection and removal of harmful content

TECHNICAL SKILLS

Languages: C++, Python, SystemVerilog, JavaScript, Swift, Java, C#

Web Technologies: HTML/CSS, React, Next.js, Tailwind CSS, Node.js

Tools: AWS, Linux, Git, Docker, CI/CD, Verilator, Claude Code, Cursor, Google Cloud Platform

Libraries: pytest, GoogleTest, TensorFlow, PyTorch, OpenCV, Pandas, NumPy, Matplotlib, SDL2