Mihir Ananthateerta

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Education

University of California, Santa Barbara Santa Barbara, CA

B.S. Computer Science, GPA: 4.0 *Expected Graduation: June 2028*

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

Experience

VR Application Developer Sep 2025 – Present

UCSB Assistive Technology *Santa Barbara, CA*

- Built an Apple Vision Pro app in visionOS with Swift for hands-free monitoring of neonatal vitals
- Implemented real-time data visualization and interactive AR UI for clinical use
- Collaborated with a UCSD medical professor and student team in a project sponsored by Apple

Embedded System Developer Dec 2025 – Present

UCSB Neurotech *Santa Barbara, CA*

- Helped create a drone system enabling real-time flight control via EEG headset signal processing
- Developed ESP32 transport layer using ESP-NOW for low-latency computer–drone communication
- Serialized and routed MAVLink command packets between ground station and flight controller

Projects

Cadence | *Next.js, Tailwind CSS, Gemini, TwelveLabs* | cadence.mihirdev.com | Video Demo

- Built an AI-powered interview practice platform with local video capture and instant playback
- Integrated Gemini to transcribe responses, evaluate technical accuracy, and flag filler words and pauses
- Used TwelveLabs to analyze delivery confidence and generate targeted, actionable feedback

Business Index | *HTML, Next.js, Tailwind CSS, Google Cloud*

- Built a Next.js website for schools to collect and search information on 100+ business and community partners
- Leveraged Google Cloud to secure data storage and enable sub-second average load time
- Designed an intuitive user interface with Tailwind CSS

Healthy Messages | *Python, TensorFlow, Pandas, Matplotlib*

- Created an application to detect and block harmful online messages
- Developed a TensorFlow-based sentiment analysis model achieving 90% accuracy across 10k+ social media posts
- Integrated Instagram and YouTube APIs for real-time detection and removal of harmful content

Crisis Mapper | *Python, Tkinter, Pandas, OpenAI API*

- Built an interactive map displaying 500+ real-time crisis reports from global media sources
- Developed the frontend and data pipeline using Python, Tkinter, and Pandas
- Integrated OpenAI API to summarize reports, making information easier to understand and act on
- Helped users stay informed by displaying incident details, timestamps, and sources

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

- Built a complete chess engine with legal move validation and an SDL2-based interface
- Developed an AI opponent using the minimax algorithm and optimized performance with alpha-beta pruning
- Achieved a consistent 1800+ (top 1%) ELO rating against online chess engines and players

Home Server Infrastructure | *Docker, Nginx, SSH, Linux*

- Built a Linux home server running 10+ containerized web, media, and smart home services using Docker
- Configured Nginx reverse proxy and SSL certificates, achieving 99.9% uptime
- Enabled secure remote management via SSH key authentication and firewall configuration

Technical Skills

Languages: Python, C++, JavaScript, Swift, HTML/CSS, Java, C#
Frameworks: React, Next.js, Tailwind CSS, Node.js, Unity
Development Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio, Fusion 360
Libraries: TensorFlow, PyTorch, OpenCV, Pandas, NumPy, Matplotlib, Pygame, SFML, SDL2