# Nicholas Le

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## EDUCATION

**University of California, San Diego** <div align="right">Aug. 2024 – June 2027</div>
*B.S. in Computer Engineering - 3.8 GPA* <div align="right">*San Diego, CA*</div>

## WORK EXPERIENCE

**Software Engineering Intern** <div align="right">June 2025 – Present</div>
*Health1st.ai — WinFully on Technologies* <div align="right">*Remote (Alpharetta, GA)*</div>

– Developed a distributed microservices platform for healthcare interoperability, implementing FastAPI services supporting HL7, FHIR, and X12 standards for seamless system integration.

– Built real-time multimodal AI workflows with Whisper-based audio streaming for live transcription, voice commands, and agent assistance in clinical tools.

– Integrated LangChain and Model Context Protocol (MCP) for declarative AI interfaces to automate field mapping and workflow orchestration.

– Designed an event-driven backend using async FastAPI, PostgreSQL, and Redis, deployed via Docker and Google Cloud Run for fault-tolerant execution.

– Built a multilingual, role-based healthcare dashboard using Next.js, Firebase, and OpenAI Whisper, deployed via GCP Cloud Run with CI/CD using Cloud Build.

– Engineered a tenant-isolated Scheduler Service for CRON-based data sync across APIs, SFTP, and databases, using GCP Cloud Scheduler and Pub/Sub.

– Designed an Ingestion Service with MLLP (HL7), SFTP, and webhooks for secure external data capture, featuring HMAC auth and Redis-based deduplication.

– Created an AI-driven Healthcare Mapping API for transforming HL7, FHIR, X12, and CCDA formats using LangChain + GPT-4, deployed via Cloud Run.

– Delivered a high-performance Valkey caching microservice with sub-5ms latency, role-based namespace segregation, and full REST API coverage.

**Lead Developer and Assistant Instructor** <div align="right">Mar. 2022 – Feb. 2024</div>
*Goose Creek Golf Academy* <div align="right">*Jurupa Valley, CA*</div>

– Deployed an iOS app in SwiftUI that authenticates users via Firebase Auth, fetches swing metrics stored in Firestore, and displays interactive charts to track performance trends and reduce manual data lookup.

– Leveraged Trackman launch monitor and wearable sensor analytics to deliver biomechanical insights, improving student swing consistency.

– Designed and maintained a performance tracking database, generating weekly progress reports and actionable coaching plans.

## PROJECTS

**RoboSub Team Website** | *React, JavaScript, HTML/CSS, MongoDB, Figma, Git* <div align="right">Jan. 2025 – Present</div>

– Building a full-stack platform for UCSD RoboSub with dynamic content management, user authentication, and role-based access control.

– Designed high-fidelity Figma prototypes and implemented pixel-perfect React components for responsive UI across devices.

– Architected RESTful API endpoints using Express.js and MongoDB to serve real-time project logs, event calendars, and member directories.

– Implemented CI/CD pipelines via GitHub Actions for automated testing, linting, and deployment to Netlify, halving release cycles.

## SKILLS AND COURSEWORK

**Languages:**  Java, C, JavaScript, TypeScript, HTML/CSS, Swift, Python, Bash
**Frameworks/Libraries:**  React, Node.js, FastAPI, SwiftUI, Firebase, MongoDB, Docker
**Certifications:**  Pearson IT Specialist, IC3 Digital Literacy, FCC Responsive Web Design, Social Media for Business
**Relevant Courses:**  Accelerated Intro to Programming (CSE 11), Data Structures & OOP (CSE 12), Discrete Mathematics—proofs & combinatorics (CSE 20), Systems Programming & Tools (CSE 29), Computer Organization & Architecture (CSE 30)