

(DANNY) NGUYEN DUONG

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[Dannydev.info](http://dannydev.info) | [GitHub](#) | [YouTube](#) | [LinkedIn](#)

Full stack software engineer experienced in modern web stacks with deep, systems-level understanding of software, from UI to metal. Adaptable to AI whilst cultivating the imperative foundations of computer science. Lifelong learner and problem solver, excelling in collaborative environments.

Professional Experience

Software Developer

Sept 2025 - Present

Rume Health

Irvine, CA

- Maintained and significantly enhanced a legacy full-stack codebase (React/Next.js/PostgreSQL) serving the entire Electronic Health Records (EHR) team, delivering critical process automation, optimized database queries, and workflow improvements that saved thousands of engineering and clinical hours.
- Designed and implemented (NodeJs/JavaScript) robust EHR software solutions that streamlined patient records management, data entry, and automated statement generation, reducing manual processing time by 40% and accelerating payment collection by recovering \$350,000 in outstanding revenue annually.
- Developed automation systems for billing workflows, including integrated ticketing and issue tracking tools, decreasing claim denials by 25% and saving over 2,000 hours of manual labor per year while contributing to six-figure revenue gains through faster reimbursements.
- Collaborated with development teams to integrate EHR and billing modules, ensuring seamless data flow and operational efficiency that improved overall system accuracy by 30% and reduced integration-related issues by 50%.

Projects

Fort Knox

- Command-line Bitcoin wallet in C, implementing BIP-32/BIP-44 for secure hierarchical deterministic wallet generation and P2WPKH (SegWit) transactions.
- Queried public APIs for real-time blockchain data, enabling balance checking, UTXO fetching, and dynamic fee estimation for efficient transaction building.
- Ensured robust security using Libgcrypt for ECDSA signing, cryptographic operations and secure memory management, with extensive input validation and rate limiting.

Node Nexus

- Lightweight, socket-based server in C implementing a custom in-memory database for file management, using low-level systems programming, memory management, and thread-safe operations with pthread mutexes.
- Integrated user authentication with SHA-256 hashing, binary serialization/deserialization, and hash table optimizations for efficient data access, securing data handling and performance optimization.
- Comprehensive command-line interface supporting features such as file compression, sentiment analysis, and admin controls, along with automated testing scripts, building robust, multi-client applications and ensuring reliability through clean shutdown and persistent storage.

Yeager Interpreter

- High-performance bytecode virtual machine in C for the Lox language, incorporating a scanner, Pratt parser, and compiler, showcasing deep understanding of interpreter architecture.

Employment

Lead Server

Oct 2016 - Dec 2025

Gyu Kaku Japanese Grill

HB, CA

Data Entry Associate

Feb 2021 - Mar 2022

Elevated Health

HB, CA

Education

Cal State University, Long Beach - [B.S in Healthcare Administration \(Incomplete, 4.0 Cumulative GPA, President's List\)](#)

- Developed analytical project management skills over 5 years; pivoted to software to pursue passion for coding.

Coding Dojo - [Three Stack Software Development](#)

- Built full-stack applications using Python, Django, JavaScript, and React.

Stanford University - [Machine Learning Specialization](#)

- Learned and applied algorithms to real-world datasets.