

(DANNY) NGUYEN DUONG

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

Professional Summary

Software engineer with comprehensive fundamentals/hands-on experience of low-level languages and operating systems (ie: C and Linux). Adaptable to AI whilst cultivating the imperative foundations of computer science.

Technical Skills

- Fluent: C
- Competent: Linux, Python, Java, Javascript
- Competent: MySQL, PostgreSQL, MongoDB
- Competent: Figma, Webflow for web development

Employment

Software and Data Engineering Intern

Sep 2025 - Present

ElevatedHealth Medical Group

HB, CA

- Leveraged CollaborativeMD and ElationEMR to efficiently gather and manage patient data, enhancing accuracy and speed of payment processing.
- Contributed to optimizing healthcare workflows by building tools that expedites data retrieval and improves operational efficiency for billing and claims management.
- Helped develop automation scripts using Python, Snowflake, and Visual Studio Basic to extract and organize patient database and insurance information, streamlining billing and claims processes.

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. Deployed on IONOS Virtual Private Server.

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.
- Enhanced the interpreter with custom features like optimized run-length line encoding and extended switch-case statement support demonstrating optimization techniques and ability to extend complex systems.

Grappling Dungeon

- Web application to catalog JiuJitsu instructional and competition videos with searchable keywords and custom user notes, built on Python and PostgreSQL.

Freelance Experience

Web/Landing Page Designer

April 2023 - Present

- Customized, attractive designs responsible for 35+% increase in traffic, inquiries, donations/sales.
- Responsive layouts adaptable to all screen resolutions. Interactive animations for visual effects.

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.