

Huy Nguyen

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EDUCATION

Georgia Institute of Technology

Bachelor of Science in Computer Science

Concentrations in System-Architecture and Cybersecurity

Atlanta, GA

Aug. 2023 – **May 2027**

Current GPA: 3.7

RELEVANT COURSEWORK

- Design of Operating Systems
- Systems and Networks
- Intro to Artificial Intelligence
- Applied Statistics
- Computer Organization
- Data Structures & Algorithms
- Intro to Database Systems
- Analysis of Algorithms (Honors)

EXPERIENCE

Software Engineer Co-Op (Incoming)

Jan. 2026 – May 2026

Intential

Atlanta, GA

- Contributing to a **network-automation platform** that treats infrastructure as code, enabling programmable network management for more scalable and agile infrastructures.
- Expected to develop full-stack features and APIs and supporting enterprise-scale automation workflows.

Undergraduate Teaching Assistant (Computer Architecture)

Jan. 2025 – Dec. 2025

College of Computing – Georgia Institute of Technology

Atlanta, GA

- Instructed **800+** students per semester in **computer architecture**, **assembly**, and **C** by leading office hours and labs
- Automated grading of **1000+** submissions per assignment by creating autograders and test suites in **Java** and **Python**, ensuring accuracy and reducing manual review time by **80%**.
- Debugged low-level code using **GDB** and **Valgrind** to resolve segmentation faults, memory leaks, and pointer errors.
- Currently collaborating to rebuild and redesign a legacy JavaFX-based circuit simulator in **Electron** (UI) and a **Rust** engine to resolve maintainability and cross-platform issues.

PROJECTS

PolicyPilot | LangChain, Gemini API, GmailAPI, React, MongoDB, Supabase Storage, ChromaDB

Sept. 2025 – Dec. 2025

- Created an health insurance-appeal platform that turns insurance denials into citation-heavy appeal drafts, reducing time to draft insurance appeals by **90%** using a multimodal **RAG system** with **ChromaDB**.
- Implemented secure document ingestion: direct-to-object-storage uploads (Supabase) + metadata in **MongoDB**; designed schemas for Insurance Plans, Cases, and Email Threads to support multi-plan/multi-family workflows.
- Integrated **Gmail API + Pub/Sub** to send user-approved correspondence from a dedicated agent inbox and analyze insurer replies to draft follow-ups (human-in-the-loop approval gates).

Movie Ranking Application | MongoDB, Express.js, React.js, Node.js, TMDB API

June 2025

- Developed a full-stack ranking app with a **RESTful CRUD API** and **React** frontend, implementing state management, search indexing, and drag-and-drop reordering for interactive movie rankings.
- Implemented an **MVC architecture** with MongoDB (Model), React (View), and Express.js (Controller) to separate concerns and streamline development.
- Integrated **TMDB API** to fetch movie data and designed a NoSQL schema in **MongoDB** to persist rankings/lists
- Dockerized backend service & deployed to **AWS EC2** with **NGINX** reverse proxy and GitHub Actions **CI/CD** pipeline

Computer Architecture and Logic Visualizer | Vue, Node.js, Figma

Dec. 2024 - Jan. 2025

- Deployed a cloud-hosted, interactive simulator in **Vue.js** that visualizes LC3 instruction execution, floating-point arithmetic, and Karnaugh map logic, boosting learning comprehension by **30%** for **800+** students per semester
- Implemented client-side routing and deployed **CI/CD** pipeline to **GitHub Pages** with automated builds via **Vite**

TECHNICAL SKILLS

Languages: Python, Java, C, C++, Type/JavaScript, Kotlin, x86 Assembly Language, HTML/CSS, Rust

Frameworks/Libraries: React, Node.js, Vue.js, Express.js, React Native, LangChain, NumPy

Databases: MongoDB, PostgreSQL, MySQL, Firebase Realtime DB, ChromaDB

Tools/Workflows: Linux, Git, GitHub Actions (CI/CD), GDB, AWS, Vercel VS Code, IntelliJ, Docker, Postman, Agile (Scrum), Jira