

Dustin Duong

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EDUCATION

Santa Clara University

09/2022 – Present

B.S. in Computer Science, Minor in Management Information Systems (Anticipated Completion: 6/2026) Santa Clara, CA

- Related Coursework: Embedded Systems, C++ and OOP, Data Structures, Algorithm Theory, Computer Security, Programming Languages, Design and Management of Software, Operating Systems, Databases

EXPERIENCE

Stage 4 Solutions - Software Engineer Intern

06/2025 – 9/2025

- Engineered lead identification **Chrome** extension with real-time **AI analysis** of the company's LinkedIn feed to achieve **300%** improvement in lead generation speed to **300+** leads/hr
- Built data management system with client filtering, LinkedIn degree tracking, and automated **CSV** export with personalized connection messages
- Authored documentation for the marketing team and contributed **HubSpot** CRM automation workflow plans

REC Exchange - Software Engineer Intern

04/2024 – 06/2024

- Conducted market research, identified customers, and developed responsive landing page with **Next.js**

TECHNICAL SKILLS

- **Languages:** Javascript/Typescript, Java, C++, SQL
- **Developer Tools:** Spring Boot, Spring, Git, MySQL Workbench, NoSQL, Cassandra, PostgreSQL, Postman, Google Cloud, AWS, Next.js, Node.js, Express, React, Docker, Ollama, Ubuntu, Linux, Jira, n8n, JWT, Unix
- **Skills:** Problem-solving, Team collaboration, Team Player, Communication Skills, Detail-oriented, User interface, Agile, Scrum, CI / CD, REST APIs, Microservices, Backend, Frontend, System Design, Debugging, Code Review, Software Development Lifecycle, Full-stack, RAG, Prompt Engineering, LLM Integration, Troubleshooting

PROJECTS

Virtual Fitting Room ([demo video](#))

10/2025 – Present

- Developed full-stack virtual try-on platform with **Spring Boot** backend and **Next.js** frontend enabling users to create and save outfit combinations and visualize them using AI-generated try-on images
- Integrated **Google Vertex AI** for personalized outfit visualization with **Redis** caching layer to optimize performance and reduce costs for frequently requested combinations
- Added comprehensive automated testing (unit/integration) and contract-first API typing to improve reliability
- Integrated authentication with JWT tokens and deployed containerized backend on **Google Cloud Platform**

Regulations.gov Document Matcher (Hack4Humanity and Hacktivism) ([demo video](#))

08/2025 – Present

- Built desktop app helping citizens engage with government processes through **AI-powered** document search, tracking, and personalized recommendations with comment sentiment analysis
- Ensured 100% data privacy with local processing using **Tauri (Rust + React/TypeScript)** and **Ollama** inference
- Engineered automated data pipeline using **Docker**-containerization, **N8N**, and **regulations.gov APIs** to fetch **1000+** documents weekly into **Supabase**, cleaning, chunking, labeling, and embedding government documents
- Implemented local **RAG** system with **Express.js**, **SQLite**, and **Qdrant** vector database for document chunking and user-profile matching and engineered force-directed graph matching algorithm achieving **95%** accuracy

SCU Schedule Helper: Chrome Extension for Course Registration ([demo video](#))

08/2024 – 9/2025

- Collaborated in 3-person team to build Chrome extension with **600+** active users, executing full **SDLC** including **Figma** prototypes, **UML** diagrams, user interviews, user tests, and Chrome Web Store deployment
- Developed professor/course rating search page, preference settings, friend network, **Workday** registration page injection with ratings and **Next.js** interface
- Scraped and aggregated data from **60,000+** SCU course evaluation PDFs and RateMyProfessor
- Built **CRUD** operations using **AWS Lambda** functions with **DynamoDB** for data management
- Increased adoption by **200** through automated newsletters using **N8N** and **AWS SES** and campus posters

Distributed Agent Communication System ([GitHub](#))

06/2025 – 07/2025

- Engineered concurrent **UDP** server in **Go** handling real-time agent docking and peer-to-peer invitation routing with **JWT**-based authentication and **RSA** public key verification
- Implemented **NAT traversal** using UDP hole punching and keep-alive packets to establish direct peer-to-peer connections between agents behind firewalls

CERTIFICATES

Meta Back-End Developer Certificate | *Python, Github, Django, Bootstrap, Rest API*

09/2023 – 02/2024

- Completed 6 courses with **30+** labs on APIs, Django, version control, Python, and databases

ORGANIZATIONS AND LEADERSHIP

Theta Tau (Professional Engineering Fraternity)

03/2024 – Present

Professional Development Chair

03/2024 – 03/2025

- Led 5-person committee to organize quarterly workshops on soft skills reaching **100+** total attendance