

LOC NGUYEN

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Summary

Software engineer and 2026 graduate who works directly with non-technical stakeholders (product owners, business analysts, biology researchers) and turns their problems into shipped production systems. 2+ years building an enterprise Vue / C# .NET / SQL Server platform used in 100+ countries, plus custom integrations, data migrations, and deployed AI features.

Education

Liberty University

Lynchburg, VA

B.S. in Computer Science: Software Engineering

Aug. 2022 – Aug. 2026

- **Awards:** 1st Place, JMU Site (Division II), ICPC US South Regional; 3rd Place, Liberty University Research Week; Full-Tuition Scholarship; Dean's List; Honors.
- **Courses:** Object-Oriented Programming, Data Structures & Algorithms, Distributed Systems, System Design, Database Architecture, Operating Systems, Compilers, Web Systems, Linux Administration.
- **Activities:** Software Development Club (**President**), Computer Science Tutor, AI Competition Club (Project Lead).

Experience

Vietnamese Baptist Church

Winston Salem, NC

AI Software Engineer (Volunteer)

Sep. 2026 – Present

- Built, deployed, and maintain a production PWA for 20+ users with live chat, push notifications, and RAG-based Voice AI answering Vietnamese questions from English PDFs with citations, isolating each tenant's data via Postgres RLS.
- Built and deployed a resilient AI microservice with multi-provider failover and exponential backoff on Oracle Cloud using Docker, ensuring 99.9% uptime during LLM outages; cut pgvector search from 1.2s to 0.25s using connection pools.
- Ran user acceptance interviews with congregation members, translated their feedback into a prioritized backlog, and documented expected behavior per feature, so every release shipped against criteria the users had approved beforehand.

OneHope – Global nonprofit; 11-person software team serving 300 active users in 100+ countries

Remote

Junior Software Engineer (Full Stack)

Jan. 2025 – Sep. 2026

- Partnered with a product owner and an end-user business analyst to modernize a legacy .NET permissions module, translating their workflow complaints into approved designs, user stories, and technical specs handed to the dev team.
- Shipped internal developer tooling across 14 .NET repos: a flag-gated request tracer (OpenTelemetry, Jaeger) making any slow request traceable from client to server to exact SQL; 3 teammates used it to cut load times 50–70% on 3 pages.
- Made the Planning dashboard load its data 20x faster (10s to 0.5s) and cut its chart's database reads 93% by fixing a badly misplanned SQL Server query and removing duplicate API calls, verifying no result or permission changed.
- Remediated a critical security vulnerability by optimizing $O(n^2)$ algorithms to $O(n)$ and adding request throttling to prevent CPU exhaustion attacks, while delivering 40+ other production features and fixes across C# .NET services.

Software Engineer Intern

May 2024 – Aug. 2024

- Executed a complex data migration recovery with a Python ETL pipeline on the Bynder API, restoring 150,000 asset relationships for 22,666 assets and saving research and marketing teams an estimated 200+ hours of manual re-linking.
- Delivered 15+ production features and fixes by connecting data sources to an enterprise reporting engine, enforcing row-level security, debugging SQL generation errors, and writing automated unit tests in Azure DevOps CI/CD pipelines.

Projects

AI Follicle Detector | Python, Detectron2, PyTorch, CVAT SDK, FastAPI, Docker

Jan. 2026 – May 2026

- Led a 6-person team delivering a cell-imaging tool for a university biology lab, gathering requirements from the researchers and fine-tuning Mask R-CNN (Detectron2) to automate manual follicle counts used to judge treatments.
- Scored the model against a held-out test set of 126 follicles, detecting 112 (F1 0.89), and prevented data leakage with a splitter keeping each of 29 animals in one split within 0.5 points of a 60/20/20 split target (50/17/17 images).

Skills

Languages: C#, Python, SQL, TypeScript, JavaScript, C++, HTML/CSS, Java (learning)

OOP & Backend: .NET 9, ASP.NET Core, Entity Framework Core, SQL Server, PostgreSQL, FastAPI, REST APIs

AI Tools: Claude Code, LLM APIs (multi-provider), RAG, pgvector, PyTorch, Detectron2

Cloud & DevOps: Azure DevOps (Git, CI/CD, Boards), Docker, Supabase, OpenTelemetry, Jaeger

Frontend: Vue 3, React, Next.js

Testing: NUnit, Vitest, Selenium, pytest, test case authoring, SQL testing