

Amelia Do

Seattle, WA • ameliado.work@gmail.com • github.com/dntrAnh • linkedin.com/in/amelia-do

EXPERIENCE

Amazon | Software Development Engineer Intern

May 2025 - Aug 2025 | Seattle, WA

Technologies: Java, TypeScript, AWS DynamoDB, AWS CloudWatch, CodeBuild, Linux, CI/CD

- Reduced backend query latency by 60% by optimizing scan-based queries to PK/SK schemas and Global Secondary Indexes (GSIs) for enterprise indexing workflows.
- Decreased DynamoDB storage footprint by 40% by re-architecting ingestion pipelines and consolidating denormalized records for distributed microservices.
- Eliminated 10+ hours/week of manual debugging by integrating CloudWatch telemetry and CI/CD post-deploy health checks to ensure production reliability.
- Architected and migrated highly scalable DynamoDB-backed backend services, driving cross-team alignment on reliable system design through technical documentation.

Yogi CPA | Software Engineer Intern

Jun 2024 - Aug 2024 | New York, NY

Technologies: Python (Flask), Node.js, Next.js, Firebase, Data Pipelines

- Reduced backend processing time from 2 hours to 1 minute by optimizing automated JavaScript execution layers and data pipelines.
- Mitigated data privacy risks by developing a Python/Flask microservice using NLP-driven entity detection to dynamically mask sensitive PII.
- Engineered scalable infrastructure to aggregate and normalize high-volume financial documents for secure data processing.

University of Science and Technology | Software Engineer Intern

Mar 2020 - May 2020 | Hanoi, VN

Technologies: Arduino, Raspberry Pi, Embedded C/C++, Python, Sensor Integration

- Deployed a production-ready automatic hand-disinfection system to 5,000+ users across 10+ schools, earning a Gold Medal at EUROINVENT.
- Increased hardware system performance by 20% through optimization of real-time control logic and sensor integration on Arduino/Raspberry Pi.
- Led on-site rollout and stakeholder coordination to validate technical requirements and ensure successful adoption by faculty.

PROJECTS

LetMeKnow (Ghost Caller) – Real-Time AI Agent | Mar 2026

Technologies: Python, FastAPI, TypeScript, Claude API, ElevenLabs, Deepgram, Twilio

- Developed a low-latency agent orchestration framework for the Cornell University AI Hackathon that manages asynchronous data streams to initiate live outbound phone calls for restaurant reservations.
- Engineered a deterministic 6-state conversational state machine integrated with NLU sentiment classification to reliably process unpredictable edge cases, rejections, and renegotiations in live production environments.
- Optimized concurrent API streaming for Deepgram STT and ElevenLabs TTS via FastAPI, successfully driving turn-to-turn system latency to under 2 seconds to maintain organic execution.

GitGPS – LLM-Powered Codebase Architecture Tool | May 2024

Technologies: AWS Bedrock, LLMs, Prompt Engineering, GitHub API

- Architected a serverless developer utility for the Google Gemini AI Hackathon that recursively interacts with the GitHub API to analyze unfamiliar repositories and generate comprehensive architectural roadmaps.
- Engineered robust data parsing pipelines to process complex file structures and syntax trees, integrating AWS Bedrock search interfaces to output reliable technical documentation that accelerates developer onboarding.

HVAC Monitoring & Surveillance System – Top 10 Cornell University Health Hackathon | Mar 2024

Technologies: Java, Spring Boot, MySQL

- Built a real-time sensor ingestion service in Java + Spring Boot, normalizing high-frequency telemetry of CFU count into a structured event stream and persisting it to MySQL.
- Designed a 10+ table relational model to support analytics queries and event-driven alerting.

SKILLS

Languages: Python, Java, C++, TypeScript, JavaScript, SQL (MySQL/PostgreSQL), Bash

Infrastructure & OS: Linux/UNIX, AWS (DynamoDB, Lambda, CloudWatch, S3), Docker, CI/CD, System Architecture

Frameworks & Tools: Agent Orchestration, Prompt/Context Engineering (Claude, Bedrock, ElevenLabs), LLM Integration

EDUCATION

Gettysburg College

Graduation: **2026**

Bachelor of Science in Computer Science

Involvements: Google Developer Student Club (President); New York University - Girls Who Code (Mentor); CodePath (Community Member & Student); Rewriting the Code; Society of Women Engineers