Binh Tran

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EDUCATION

Gettysburg College

Gettysburg, PA

Graduated: May 2025

B.S in Computer Science

• Relevant Coursework: Operating Systems, Databases, Computer Networks, System Design, Data Structure

EXPERIENCE

Software Developer Engineer Intern

 $May\ 2024-August\ 2024$

Amazon Web Services

Seattle, WA

- Implemented a **REST API** for AWS Run Command with **Java** and **Google Guice**, handling **80%** of incoming requests and improving overall performance
- Developed an AWS CLI tool that automated cloud instance management, cutting operation times by 30% and enhancing workflow efficiency.
- Boosted API reliability and throughput by analyzing 200,000 logs and metrics in AWS CloudWatch, identifying
 and resolving critical issues

Software Developer Engineer Intern

May 2023 – August 2023

Amazon Web Services

Seattle, WA

- Engineered monitoring tools in Java for distributed systems with 10,000+ hosts, using **Amazon S3** and **DynamoDB** to store and retrieve system metrics
- Leveraged Python and Amazon Forecast to predict cloud host requirements for 3–12 months, automating the storage of predictive data in DynamoDB
- Deployed monitoring tools across 50+ regions through CI/CD pipelines, enabling cross-team adoption and provide greater system insights

Undergraduate Research Assistant

May 2022 – July 2022

Gettysburg College

Gettysburg, PA

- Designed 2D RPG Game using the Godot engine, featuring AI-driven character behavior
- Developed an intuitive user interface with GDScript, resulting in significantly enhanced player engagement

PROJECTS

CMS-1500 Auto-Validator | Python, FastAPI, React, TypeScript, Amazon Textract, Google Gemini

- Built a web application for CMS-1500 medical claim forms using FastAPI and React
- Implemented a rule-based parser for validating fields from fillable PDF forms, and used Amazon Textract OCR to handle unstructured data from images.
- Integrated a Google Gemini-powered LLM chatbot to explain validation errors

AWS Serverless Image Processing Platform | Go, AWS S3, Lambda, Gateway, TypeScript

- Built a distributed image processing pipeline with serverless architecture using AWS Lambda and S3, enabling scalable and reliable image transformation
- Implemented a image processing system using AWS API Gateway and using presigned URLs for secure, efficient high-traffic handling
- Implemented a front-end interface using **TypeScript** for uploading and downloading images, enhancing user interaction with the platform

Air Quality Monitor | JavaScript, NodeJS, React, Express, InfluxDB, Arduino

- Engineered a back-end architecture using **Node.js**, **Express**, and **InfluxDB** to process and manage over **10,000** daily air quality data points
- Integrated **Arduino** hardware with software systems to enable real-time air quality monitoring and data analysis.
- Refined and optimized Arduino-based hardware code, significantly improving data accuracy

TECHNICAL SKILLS

Languages: Java, C/C++, Python, JavaScript, PHP, SQL, Golang, Bash

Frameworks: NodeJS, ReactJS, Spring, ExpressJs, Google Guice, Tailwind, Vue, Flask, LangChain, LangGraph

Developer Tools: AWS, Postman, Docker, Git, Jupiter Notebook, GitHub, Cursor, Linux

Cloud/Databases: AWS EC2, Amazon S3, DynamoDB, Forecast, AWS System Manager, MongoDB, Oracle database,

MySQL, Redis