Quang Dang

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SUMMARY:

Aspiring Cloud Engineer skilled in designing scalable, automated, and data-driven solutions. Expertise in **cloud infrastructure optimization**, **Continuous Integration/Continuous Deployment (CI/CD) pipelines**, and **machine learning (ML) model development** to address real-world challenges.

SKILLS:

- **Software Development:** Python, C/C++, Bash, Java, JavaScript, HTML/CSS, SQL
- **Cloud & DevOps:** Linux, GitHub, Jenkins, Ansible, Terraform, Docker, Kubernetes, AWS (Lambda, SageMaker, CodePipeline, CodeBuild, ECR, EKS, DynamoDB, Bedrock)
- **ML/AI Engineering:** PyTorch, Scikit-Learn, Regression, Classification, Reinforcement Learning, Neural Network (CNN, LSTM, GAN), Natural Language Processing (Word Embedding, Sequential Labeling, Transformer)

EXPERIENCE:

University of Oregon – Research Assistant / Teaching Assistant

Eugene, OR, USA | Sep 2022 – Dec 2024

- Conducted cutting-edge research in **Federated Learning** for Distributed Edge Systems, orchestrated ML models across 20 edge nodes using **Kubernetes**.
- Developed **anomaly detection** models on real-world telecom packets and optimized them using Neural Architecture Search, achieving a 93% detection rate for malicious IoT devices.
- Taught **Data Structures and Algorithms** (DSA), **Object-Oriented Programming** (OOP), and **web design** in C/C++, Python, and JavaScript to 400+ students across 5 computer science courses.
- Conducted **coding interviews** and provided constructive feedback for 50+ students, enhancing their technical skills.

Samsung Electronics – Embedded Software Engineer

Ho Chi Minh, Vietnam | Mar 2021 – May 2022

- Designed and debugged firmware for **ARM Cortex-M** embedded systems using **Keil uVision**, optimizing cooling and defrosting cycle of 30+ refrigerator models.
- Automated test case management with **Jenkins**, improving **A/B testing** efficiency for refrigerator systems.
- Integrated **Wi-Fi modules** and **AI models** on Bespoke smart refrigerators, boosting energy efficiency by 21% across 2 million units.

PROJECTS:

MultiCloud, DevOps & AI E-Commerce Platform

Bash, YAML, Terraform, Docker, Kubernetes, AWS (CodePipeline, ECR, EKS, Lambda, DynamoDB, Bedrock), Google BigQuery, Azure Text Analytics | [Code] | 2025

- Automated infrastructure provisioning with **Terraform** (IAM roles, EC2 instances, DynamoDB tables) on AWS
- Containerized backend and frontend services with **Docker** and deployed via **Kubernetes** on **AWS EKS**, ensuring a scalable and resilient system.
- Built a CI/CD pipeline using **AWS CodePipeline** and GitHub for automated deployments.
- Deployed AI-driven customer support and recommendation services using **AWS Bedrock** and **OpenAI** Assistants.
- Integrated **Google BigQuery** for backup storage and **Azure Text Analytics** for ticket sentiment analysis in a multicloud architecture.

Cloud Storage Web Application

Bash, Flask, Nginx, AWS (S3, EC2, Lambda) | [Code] | 2024

- Developed a **Flask** application for file uploads/downloads (up to 200MB) to **AWS S3** across EC2 instances in 3 Availability Zones, enhancing availability.
- Configured **Nginx** as a load balancer for health checks and traffic management, achieving 99% uptime.

MBTI Classifier from Online Posts

Python, NLP, CNN, Transformer | [Code] | 2023

- Tokenized Reddit posts using **Word2Vec** for NLP preprocessing.
- Built **CNN** and **DistilBERT** models to classify MBTI personality types, achieving an F1-score of 0.77 across 16 classes.

Face Aging Model

Python, PyTorch, GAN | [Code] | 2022

- Fine-tuned an **Attention-guided GAN** on the Flickr-Faces-HQ Dataset to modify age, gender, and glasses attributes.

EDUCATION:

University of Oregon – Master of Science in Computer Science

Eugene, OR, USA | Sep 2022 – Dec 2024

North Dakota State University – Bachelor of Science in Electrical Engineering

Fargo, ND, USA | Aug 2018 – May 2020

CERTIFICATIONS:

- AWS Certified Solutions Architect – Associate (Feb 2024)
- AWS Certified Machine Learning Engineer – Associate (Mar 2025)
- AWS Certified DevOps Engineer – Professional (In Progress)