Xuan Duy Anh Nguyen

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EDUCATION

San Francisco State University — **San Francisco, CA**
Degree, Master of Computer Science. — Aug 2023 - Expected Jul 2025
GPA: 4.0
Coursework: Advanced Databases, Advanced Computer Networks, Analysis of Algorithms II, Software Engineering.

University of Science and Technology of Hanoi — **Hanoi, Vietnam**
Degree, Bachelor of Information Communication and Technology. — Aug 2017 - Dec 2020

WORK EXPERIENCE

San Francisco State University — **San Francisco, CA**
Research Assistant - Software Engineer (Part Time) — Feb 2025 – Present

- Utilize Typescript, Express.js, MongoDB, PostgreSQL, Docker, and AWS to develop RESTful APIs for YouDescribeX, an AI-driven platform providing audio descriptions for YouTube videos, enhancing accessibility for visually impaired users worldwide.
- Integrate OpenAI Model to rank videos based on relevance to search keywords, improving search accuracy by 40% and enhancing user experience, which led to a 30% increase in new user acquisition.
- Co-author of a paper titled "YouDescribe: Bridging AI Efficiency and Human Insight for Scalable Audio Description", accepted at the CHIWORK 2025 Late-Breaking Works (LBWs) track conference.

Famtech., JSC — **Hanoi, Vietnam**
Software Engineer (Full Time) — Mar 2022 – Mar 2023

- Developed scalable, high-performance APIs using Java, Spring Boot and Hibernate, improving the speed by 30% and enhancing the reliability of Luxuria, a social media platform tailored for luxury shopping enthusiasts.
- Implemented Prometheus and Grafana for system monitoring and visualization, enabling real-time performance tracking and reducing mean time to detection (MTTD) of issues by 40%.
- Participated in designing and optimizing databases for scalability and efficiency and applied best practices in database management and maintenance leading to a 20% improvement in API response times.

CMC Global — **Hanoi, Vietnam**
Software Engineer (Full Time) — Aug 2021 – Mar 2022

- Researched and implemented a Fan-out Pattern for Serverless Architecture in AWS (AWS Lambda, AWS API Gateway, AWS SQS, AWS SNS), resulting in a 40% improvement in data synchronization speed and reducing integration errors by 25% across multiple eCommerce platforms.
- Utilized Infrastructure as Code (IaC) using Terraform for the rapid and consistent deployment of infrastructure, resulting in a 25% decrease in infrastructure setup time.
- Developed and maintained AWS Lambda functions using Node.js, optimizing performance by reducing cold start times by 80% through the implementation of provisioned concurrency technique in AWS Lambda.
- Collaborated within a Scrum Team to implement program design, code reviews, and testing phases following the Agile Software Development Lifecycle, ensuring timely delivery of project milestones.

VMO Holdings — **Hanoi, Vietnam**
Software Engineer (Full Time) — Aug 2020 – Aug 2021

- Utilized Javascript, Express.js, MySQL, Sequelize ORM, Docker and AWS for development of RESTful APIs and cron jobs in an innovative platform aiming to revolutionize the Media & Entertainment industry by reshaping content engagement among Providers, Distribution Platforms, and Viewers.
- Developed a high-performance backend API with NestJS, MongoDB, AWS, and Docker, resulting in a 20% user increase within six months for a promising video streaming mobile app.
- Wrote reusable unit tests to ensure quality control resulting in a 30% reduction of user bug tickets.

CERTIFICATE

AWS Certified Solutions Architect - Associate — AWS Certified Developer - Associate

TECHNICAL SKILLS

Languages: Javascript, Typescript, Python, Java, Go, C++, HTML, CSS.

Technologies & Frameworks: Node.js, Express.js, NestJS, Koa.js, React, Docker, RabbitMQ, Redis, AWS, Google Cloud, MongoDB, NoSQL, MySQL, PostgreSQL, Graph Database, Neo4J, Redux, Git, CI/CD, Agile, Kafka.

Tools: Jenkins, Github, Gitlab, Bitbucket, Jira, Kubernetes (K8s), Terraform.