

Toan Tran (Tony)

[GitHub](#) | [LinkedIn](#)

Software Engineer

Can Tho, Viet Nam | toantranct94@gmail.com | 0936 476 011

Summary

With over 6 years of professional experience in backend development, I have a proven track record of building and maintaining robust and scalable backend systems. I am skilled in writing defensive, composable, and testable code, ensuring high quality, maintainability, and performance of the systems.

I am well-versed in FastAPI, other Python frameworks, and .NET, allowing me to deliver efficient solutions. Additionally, my familiarity with infrastructure services like AWS, Docker, and my experience with CI/CD and DevOps processes further enhance my ability to contribute effectively.

I possess an understanding of RESTful APIs and have worked with database technologies, including NoSQL and SQL. This background enables me to address pain points, identify bottlenecks, and tackle bugs to enhance engineering efficiency. I have a knack for problem-solving, analytical thinking, and troubleshooting, which have consistently contributed to the success of the projects I have worked on.

Work experience

Software Engineer at Kinatico (Remote – Perth, Australia)

Mar 2023 – present

Incorporate third-party software providers into the existing system.

- Utilized architectural patterns Command Query Responsibility Segregation (CQRS) and C# to seamlessly integrate third-party software providers into the existing system.
- Created API endpoints to efficiently handle incoming data from webhooks provided by third-party software providers.
- Set up a recurring cron job to systematically retrieve data from third-party sources.

Techstack:

- Programming Language: C#
- Framework: ASP.NET
- Database: MariaDB
- Event Sourcing: EventStore
- Web Server: Internet Information Services (IIS)

Software Engineer at VoltaRocks (Remote – Melbourne, Australia)

Jan 2022 – Mar 2023

- Led a development team of 5+ members responsible for CredShare and VoltaRocks projects.
- Developed and deployed multiple API micro-services to enhance functionality and improve user experience.

- Collaborated with various AWS components, including EC2, ECS, Fargate, ALB, SQS, SNS, Route 53, S3, CloudFront, and IAM, to ensure high availability, fault tolerance, and auto-scaling.
- Established a centralized logging environment (CloudWatch, S3) to collect log data from AWS resources.
- Employ a serverless architecture and AWS Timestream, Aurora to design the service architecture and pipelines for the Volta product.
- Implemented an easily manageable hybrid infrastructure (Amazon AWS) using Infrastructure as Code (IaC) principles.
- Developed custom scraping scripts and automated data collection processes to gather large volumes of data from diverse sources.
- Utilize AWS CodePipeline, and ECR in conjunction with GitHub or Bitbucket to establish a seamless CI/CD pipeline.

Techstack:

- Programming Language: Python, Typescript
- Framework: FastAPI
- Cloud Provider: Amazon Web Services (AWS)
- Database: OpenSearch, DynamoDB, DAX, Aurora

Software Engineer at CredShare (Remote - Perth, Australia)

Oct 2021 – Dec 2022

CredShare is a comprehensive platform designed to simplify the management of staff and company credentials. With CredShare, businesses of all sizes can streamline compliance processes and efficiently handle important business documents.

- Led a team of 5+ developers and supervised the application requirements.
- Created and executed a comprehensive database architecture using DynamoDB.
- Developed APIs for the web application utilizing Python (FastAPI) and AWS technology stack.
- Incorporated AWS OpenSearch to enhance query performance.
- Deployed VPN using EC2 and Pritunl.
- Optimized monthly costs associated with AWS services.
- Integrated Textract, Sagemaker, and machine learning models to extract valuable data from documents.

Techstack:

- Programming Language: Python
- Framework: FastAPI
- Cloud Provider: Amazon Web Services (AWS)
- Database: OpenSearch, DynamoDB, DAX

Software Engineer at Duy Tan University (Can Tho, Viet Nam)

Feb 2017 – Oct 2021

The projects focus on building a comprehensive mobile application designed to assist students and instructors in their educational endeavors. The main goal is to provide a user-friendly platform that streamlines university services and enhances the learning experience.

The application aims to attract a large user base, including students, professors, and educational institutions.

- Developed mobile applications aimed at assisting both students and instructors.
- Developed the core application logic and establish an API server to provide university services.
- Designed the architecture and pipelines for the Machine Learning-based enrollment prediction APIs..
- Implemented and deploy machine learning and deep learning models.

Techstack:

- Programming Language: C#, Python, Java, Swift
- Framework: ASP.NET, Flask, Tensorflow, Pytorch
- Database: SQL Server

Undergraduate Research at University of Las Vegas (Las Vegas - US)

Oct 2018 – Apr 2019

The project aims to research and develop autonomous vehicle technologies. I am implementing algorithms for autonomous driving, including lane detection and keeping, steering wheel prediction, and maintaining a safe distance.

The demo application is built using Unity (C#) and serves the model through Flask (Python) and SocketIO. Also connecting the application to a simulation device called Simcraft.

- Conducted research on autonomous vehicle theory.
- Developed algorithms for autonomous driving car functions, such as lane detection and keeping, steering wheel prediction, and maintaining a safe distance.
- Created a demo application using Unity (C#), incorporating Flask (Python) and SocketIO to serve the model.
- Established a connection between the application and a simulation device (Simcraft).

Techstack:

- Programming Language: C#, Python
- Framework: Tensorflow

Education

2019 – 2022

Master of Computer Science

Can Tho University

[Got a scholarship which is given to promising students by Vingroup Joint Stock Company.](#)

[Research Profile](#)

2012 – 2017

Bachelor of Software Engineering

Can Tho University

Awards

- 1st Place - Code War - ICOMM 2021: I competed in Code War, a prestigious competition for software developers. The competition tested participants' abilities to answer questions and solve coding challenges.
- 1st Place - Emotion Recognition Challenge 2019: In this competition, I successfully classified emotions from audio using machine learning and deep learning techniques, surpassing other participants and securing the top position.
- 2nd Place - Vietnam AI Grand Challenge 2019 (in a team): As a member of a team, we participated in the Vietnam AI Grand Challenge and achieved second place. The project involved developing a smart system to enhance restaurant operations. My specific role was to build voice features, enabling the bot to effectively communicate with humans.

Tech skills and competencies

1. Programming Languages

- Python
- C#
- TypeScript

2. Frameworks and Libraries

- Flask
- FastAPI
- ASP.NET MVC

3. Best Practices

- Agile Development
- Continuous Integration/Continuous Deployment (CI/CD)
- DevOps
- Design Patterns
- Object-Oriented Programming (OOP)
- Clean Code Principles

4. Databases

- MySQL
- PostgreSQL
- SQL Server
- Redis
- OpenSearch
- DynamoDB
- AWS Time Stream

5. Automation Tools

- GitHub CI/CD
- AWS Code pipeline
- Docker
- AWS ECS
- AWS CDK

6. Version Control

- Git

7. Cloud Platforms

- Amazon Web Services (AWS)
- Google Cloud Platform (GCP)