

Tu Nguyen

Software Engineer

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Professional Summary

Highly motivated Python Software Engineer with 7 years of experience specializing in scalable backend development with Django, AWS, and CI/CD pipelines.

Experience

Python Software Engineer

Boston, MA

RSG

January 2025 - Present

- Architected and implemented CI/CD pipelines using GitHub Actions to automate build, test, and deployment processes, significantly accelerating release cycles and improving code quality.
- Improved unit and integration test coverage across critical modules from 63.5% to 74%, significantly enhancing software reliability and proactively reducing post-deployment defects.
- Containerized core project applications with Docker, standardizing development environments, simplifying deployments across different stages, and ensuring consistency.

Python Software Engineer II

Boston, MA

Perch

June 2021 - May 2024

- Developed and extensively optimized Python/Django applications resulting in a 20% boost in end-user satisfaction through the consistent delivery of highly reliable and bug-free software solutions.
- Order to Ship Improvement:
 - Led end-to-end automation of order-to-ship processes, reducing cycle time by 50% and freeing \$11M in working capital through streamlined inventory management and logistics.
 - Designed and implemented a caching strategy using Redis that improved page load times.
- Ads Optimization:
 - Developed automation solutions, optimizing ad bid logic and increasing sales estimates by 15%.
 - Optimized database queries using PostgreSQL, resulting in a 20% reduction in data retrieval time.

CAO Systems Specialist

Quincy, MA

ADUSA Procurement

July 2018 - June 2021

- Managed SQL Server and Oracle Databases supporting critical ordering, inventory, and forecasting systems for over 750 stores across three major supermarket brands.
- CAO Python Modernization
 - Led the development and deployment of a mass inventory update system, automating manual entries and saving 8,000 to 15,000 working hours weekly, significantly enhancing operational efficiency.
 - Coordinated data migration tasks from legacy systems, reducing data inconsistencies by 25%.

Skills

- **Languages:** Python, JavaScript, TypeScript, SQL, Bash, HTML5, CSS3
- **Frameworks & Libraries:** Django, Flask, FastAPI, React, Node.js, Express, Vite, Bootstrap, Tailwind
- **Databases:** PostgreSQL, MySQL, DynamoDB, MongoDB, Redis, SQL Server, Oracle
- **DevOps & Tools:** AWS (EC2, S3), Azure, Docker, Kubernetes, Git, GitHub Actions, Terraform, Ansible, Jenkins, CI/CD, Prometheus, Makefile
- **Other:** Unix/Linux, Windows, macOS

Projects

Analytical Exploration of Boston Crime Statistics

github.com/tu-nguyen/analytical-exploration-of-Boston-crime-statistics

- Conducted in-depth analysis of over 268,000 rows of Boston crime data leveraging Python, Jupyter Notebook, and libraries like NumPy, Pandas, and Matplotlib.
- Processed and analyzed three years of crime data, visualizing key trends and patterns..

Education

University of Massachusetts Boston

Boston, MA

Bachelor of Science in Computer Science

May 2018