Darshan Acharya

Davis, CA acharyadarshan02@gmail.com github.com/acharyadarshan   linkedin.com/in/darshanacharya/
+1 530 220 2941

Education

University of California Davis   Davis, CA
MS Computer Science, GPA 3.71   Sept 2023 - June 2025
Relevant Coursework: Design and Analysis of Algorithms, Computer Architecture, Machine Learning, Theory of Computation, Software Engineering, Distributed database systems, Information Security

Tribhuvan University   Kathmandu, Nepal
BS Computer Engineering, GPA 3.85   Nov 2017 - June 2021
Awards and Honors: Dean's scholarship (4 semesters), Codecamp Hackathon (1st place)

Experience

Leapfrog Technology   Kathmandu, Nepal
Software Engineer   July 2021 - Aug 2023
- Responsible for developing and maintaining RESTful APIs using Python (Flask) and Java (Spring Boot) for cloud-based analytics dashboards for enterprise clients in the US insurance sector.
- Worked on the migration from monolithic architecture to microservices, implementing Redis caching and database query optimizations that improved dashboard performance for WorldLink Communications.
- Developed interactive agent-based simulation platform using TypeScript, Next.js and GraphQL for DigiFinance (Singapore-based fintech), implementing Flask microservices with PostgreSQL that improved user concurrency.
- Part of the DevOps initiative to containerize applications with Docker and implement CI/CD pipelines with Jenkins, reducing deployment issues for digital banking platforms.
- Technologies used : Python, Flask, Java, Spring Boot, TypeScript, Next.js, GraphQL, PostgreSQL, Docker

Leapfrog Technology   Kathmandu, Nepal
Software Engineer Intern   March 2021 - June 2021
- Enhanced testing protocols by implementing automation with Python, Pytest and Selenium for the Warehouse Management System, substantially reducing QA cycle duration.
- Worked on RESTful endpoints for real-time data processing that improved system throughput and reliability under production conditions.
- Technologies used : Python, Pytest, Selenium, Flask, SQLAlchemy, PostgreSQL, REST APIs

University of California, Davis   Davis, California
Teaching Assistant   Jan 2024 - March 2025
- Led weekly discussion sections for Object Oriented Programming (ECS 36B) and Chemistry (2A and 2B).
- Provided feedback on programming assignments for students each quarter. Developed supplementary learning materials and code examples that have become recommended course resources.
- Technologies used : C++, Git, GitHub, Unix/Linux   Link to TA evaluation

Projects

UTXO Visualization | Python, D3.js, React, Flask, Node.js, AWS Lambda | Link to project
- Designed and developed a transaction heatmap visualization for more than 10K blockchain transactions in the Resilient Database developed by the Expo lab at UC Davis.
- Deployed visualization tool on AWS EC2 with auto-scaling configuration to handle various traffic loads.

Python Testing Frameworks | Python, pytest, unittest | Link to project
- Analyzed 119 Python repositories from OSS-Fuzz to evaluate the effectiveness of three major testing frameworks: unit testing, fuzz testing, and property-based testing.
- Used static analysis (AST parsing) and GitHub API mining to collect metrics.

Technical Skills

Languages : Python, JavaScript, Java, SQL, C/C++, HTML5, CSS
Frameworks : Flask, React, Redux, Kafka, Spring Boot, Node JS, SQLAlchemy, Fast API, GraphQL, Express, Firebase
Tools and Cloud : Git, Docker, Bash, Jira, Cypress, Kubernetes, Terraform, AWS, GCP, CI/CD, REST APIs, Jenkins
Databases and others : PostgreSQL, MySQL, MongoDB, Data Structures and Algorithms, Agile, Scrum