

Darshan Potnis

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Summary

Software Engineer with hands-on experience building scalable backend systems, distributed services, and cloud-native applications. Strong foundation in Data Structures & Algorithms, Object-Oriented Programming (OOP), and system design principles. Experienced in developing production-grade REST APIs, solving performance bottlenecks, and delivering reliable software using Python, JavaScript, and AWS.

Education

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| • University of Southern California, Los Angeles, CA
M.S. in Applied Data Science | Jan 2024 – Dec 2025 |
| • BSE Institute, Mumbai, India
Post Graduate Diploma in Predictive Analytics | Jun 2022 – Jul 2023 |
| • S.I.E.S College of Arts, Science and Commerce, Mumbai, India
B.Sc. in Computer Science | Aug 2019 – Jun 2022 |

Experience

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| 99 Yards | Remote |
| Software Engineer Intern | Jun 2025 – Aug 2025 |
| • Designed and implemented scalable RESTful backend services using FastAPI, PostgreSQL, and Docker on AWS Fargate, applying OOP and clean architecture principles. | |
| • Built a Redis Streams-based event pipeline to support real-time synchronization, reducing API latency by 45% under concurrent workloads. | |
| • Developed CI/CD pipelines using GitHub Actions and Terraform, enabling automated testing, blue-green deployments, and safe production rollouts. | |
| • Reviewed code, improved modularity, and contributed to technical documentation to ensure maintainable and reliable releases. | |
| Scienox Technologies | Mumbai, India |
| Backend Engineering Intern | Oct 2022 – Apr 2023 |
| • Built real-time data ingestion services using Flask, PostgreSQL, and AWS EC2 to support latency-sensitive financial workflows. | |
| • Optimized SQL queries and implemented Redis caching, reducing API response time by 40%. | |
| • Improved system reliability by adding logging, health checks, and alerting, helping maintain 99.9% uptime. | |

Skills

- Languages: Python, JavaScript, Java, C++, SQL
- Backend & Frameworks: FastAPI, Flask, Node.js, Express, Django
- Cloud & DevOps: AWS (EC2, S3, Lambda, Fargate), GCP, Docker, Terraform, GitHub Actions, CI/CD
- Databases: PostgreSQL, MongoDB, MySQL, Redis, Firebase
- Core CS: Data Structures & Algorithms, Object-Oriented Programming (OOP), Multithreading, Time & Space Complexity
- Engineering Concepts: REST APIs, Microservices, Distributed Systems, System Design
- Testing: PyTest, JUnit, Selenium, Unit & Integration Testing

Projects

- Cloud File Storage Platform [Node.js, React, AWS S3, PostgreSQL, Docker, CI/CD]
 - Designed and built a secure, scalable object storage service supporting resumable uploads, role-based access control, and multi-user file management.
 - Optimized backend architecture using AWS S3 pre-signed URLs, stateless REST APIs, and efficient request handling, reducing backend workload by 70%.
 - Implemented metadata persistence with PostgreSQL and deployed full-stack services using Dockerized microservices and automated CI/CD pipelines.
- Real-Time Collaborative Code Editor [React, Node.js, Socket.IO, WebSockets, Monaco Editor]
 - Designed and developed a real-time collaborative editor enabling concurrent multi-user editing with sub-200ms synchronization latency.
 - Implemented room-based collaboration, presence indicators (live cursors, typing indicators), and language switching for a Google Docs-style experience.
 - Engineered WebSocket state reconciliation, event ordering, and echo-loop prevention to maintain consistent shared editor state under concurrency.
- AI Storyboard Generator [Python, GPT, Stable Diffusion, Redis, Flask]
 - Built an automated content generation pipeline converting scripts into visual storyboards using LLM-based text parsing (GPT) and image generation (Stable Diffusion).
 - Improved system throughput by 30% through Redis-based caching, pipeline optimization, and asynchronous task handling.
 - Exposed generation workflows via Flask REST APIs, enabling scalable and modular integration.

Certifications & Achievements

- AWS Cloud Practitioner, Google Cloud Digital Leader, Python (HackerRank)
- Finalist – USC Data Science Hackathon: Forecasted Lyft ride demand using real-time data; improved dashboard latency by 30%.
- Winner – FinTech Hackathon: Built anomaly detection microservice with a 5-member team; reduced false positives by 18%.