

Niharika Vilas Deshmukh

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SUMMARY:

Computer Science graduate student with 2+ years of experience in **backend development (Java)**. Strong Object-oriented programming skills in **Java** and well versed in **Spring Boot**. Experienced in cloud technologies, known for building and delivering high-quality, scalable and modular **RESTful** micro services to enhance user experiences.

SKILLS:

Languages: Java, Python, C, C++, SQL, Go, JavaScript, TypeScript, Solidity, HTML5, CSS.

Web Development: Spring framework, Node.js, React.js, Angular.js, CodeIgniter (PHP).

Databases: MySQL, MongoDB, PostgreSQL, Redis, DynamoDB, Cassandra, Hive, NoSQL.

Infrastructure and Cloud Services: AWS, Azure, Google Cloud Services, Docker, Kubernetes, Elastic Search, Prometheus.

Algorithm & Design: Algorithms, Design Patterns, Object-Oriented Design, Microservices, RPCs, SOLID, SDLC, OOAD.

Testing, Monitoring & Logging: JUnit testing, Mockito, Postman, Grafana, Ganache Truffle, Prometheus, SonarQube.

Version Control & Collaboration: Git, Jira, Confluence, Scrum, Agile methodologies, Jenkins, CI/CD.

Other: Figma, gRPC, Apache Kafka, Spark, JSON, XML, REST, SOAP, MVC, Maven, Spring MVC, JPA, Hibernate.

WORK EXPERIENCE:

- OYO Rooms, Bangalore, KA, India** **Software Development Engineer - 1** **August 2020 - July 2022**
- Built a **multi-tenant** ticketing system employing a **microservice architecture** (user access management, ticket management, search and reporting service), yielding a savings of **3500 agent licenses** and reducing annual costs by **\$500k**.
 - Optimized database performance of ticketing tool by introducing **Postgresql** read replicas and database indexes, resulting in a 90% reduction in query response time and enhanced system performance.
 - Led the development of the **instant wallet refund** feature with **Java**, ensuring **thread safety** and managing **concurrent data access**, reducing refund processing time from **7-14 days to 1 hour**.
 - Collaborated cross-functionally to implement instant payouts through **Stripe integration** in a **PCI compliant Spring Boot payment microservice**, ensuring access to funds within **30 minutes of a charge**.
 - Executed a stability initiative by configuring liveness and readiness probes to enhance health checks and by **integrating Application Performance Monitoring** and **Grafana** for better debugging, and monitoring across **20 Java microservices**.
 - Developed comprehensive unit test cases for the Wallet Service leveraging **JUnit**, **AssertJ**, and **Mockito**, achieving an **95% code coverage** for enhanced code reliability and test coverage.
- Tech Stack:** Java, Spring Boot, Postgres, Redis, MongoDB, Kubernetes, AWS (S3, SES, SQS, EC2, RDS, SNS), Azure.

- VidarthiMitra, Pune, MH, India** **Intern - Web Developer** **May 2019 - July 2019**
- Developed an MVC-based college rank predictor system in Python and PHP, with a user-friendly frontend and query processing backend to recommend suitable colleges based on student preferences.
- Tech Stack:** Python, PHP, MySQL, HTML, CSS, Bootstrap, JS, Model-View-Controller (MVC), Postman.

PROJECTS:

- Single Threaded Relational Database Management System** | Cpp, Relational Database, Query Optimization
- Created a single-threaded RDBMS like PostgreSQL, covering file handling, buffer management, schema, data layout, access and methods, heap files, b-tree indexing, and query processing.
- Decentralized Domain Name Marketplace** | Solidity, Ether.js, React.js, Heroku, Postgres, AntDesign, web3, Figma, Express.js
- Developed an ERC721-compliant decentralized application with react.js frontend for managing domain name NFTs with Metamask integration, tokenization and a marketplace feature to buy, sell and auction the domain names.
- Fault-Tolerant Distributed Key-Value Storage** | Go, gRPC, Distributed Systems
- Built a reliable distributed key-value storage system in Go. Implemented the Raft Consensus algorithm to elect leaders and replicate logs, achieving consensus in leader election and log replication for a system consisting of five nodes.

EDUCATION

University at Buffalo, The State University of New York Buffalo, NY, USA
Master of Science in Computer Science. GPA - 3.75/4 **August 2022 – December 2023**
Relevant Coursework: Distributed Systems, Database Systems, Analysis of Algorithms, Blockchain, Reinforcement Learning.
Teaching Assistant: Introduction to Machine Learning (Fall 23, Spring 23)

College of Engineering Pune Pune, MH, India
Bachelor of Technology in Computer Science. GPA: 7.15/10 **August 2016 – May 2020**
Relevant Coursework: Data Structures, Operating Systems, Computer Networks, Artificial Intelligence, Web Services and Technology.