Divya Mahajan

Software Engineer Lead | Master's in CSE

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Professional Summary

Experienced technical developer with 6+ years of global collaboration in Enterprise Resource Planning systems. Proficient in SDLC leadership within agile frameworks, delivering end-to-end projects. Skilled in algorithmic solutions, cloud infrastructure, and a master's degree graduate in computer science engineering, specializing in distributed systems and full-stack development. Recognized for adaptability and fast learning.

Area of Expertise

- ✓ Cloud-Native Applications and Cloud Computing
- ✓ Agile Methodologies and SDLC Leadership
- ✓ Cross-Functional Collaboration
- ✓ Root Cause Analysis and Complex Problem Resolution
- ✓ End-to-End Project Management
- ✓ Continuous Integration and Continuous Delivery (CI/CD)
- ✓ Effective Communication and Interpersonal Collaboration

- ✓ Data Structures and Algorithms
- ✓ Backend Development
- ✓ API Development
- ✓ Full-Stack Web Development
- ✓ Microservices Architecture
- ✓ Troubleshooting and Debugging
- ✓ Design Patterns

Certifications

AWS Certified Cloud Practitioner Issued by Amazon Web Services

SAP Certified Development Specialist - ABAP for SAP HANA 2.0 Issued by SAP

Agile Software Development Course Issued by Coursera

Technical Skills

Programming Languages: Python, JavaScript, Golang (Go)
Frameworks: React, Next.js, Django, Flask, FastAPI
SQL Databases: SAP HANA, MySQL, AWS PostgreSQL
NoSQL Databases: Firebase, MongoDB
Cloud & DevOps: Amazon Web Services (AWS),
Containerization /Orchestration: Docker, Kubernetes, Helm

Message Brokers: Apache Kafka
Caching: Memcached, Redis
Big Data: Spark, Hadoop, HDFS
Data Analysis: Pandas, Matplotlib, Seaborn
Testing Tools: PyTest, ABAP Units
Linux systems and command line tools

Education

Mar 2022 - Mar 2024
Santa Clara University,
Location: *Santa Clara, CA, USA*
Degree: Master of Science (MS)
Major: Computer Science Engineering,
GPA of 3.952

Projects   *2022-2024*

- "Course Connect" (*Python/Django, AWS, MVT, RESTful, Leader Election*): Developed fault-tolerant web app, adhering to MVT design pattern with RESTful architecture for client-server communication, integrated message broker for efficiency, used PostgreSQL for data retrieval with concurrency and failure handling. Implemented distributed leader election for fault tolerance, demonstrating strong system design skills in cloud infrastructure.
- "URL Shortener" (*React, FastAPI, Memcached, MongoDB, Docker, Kubernetes, Helm*): Deployed URL shortening web service, which can create up to 3.5T unique short URLs. Utilized microservices design patterns like load balancing for routing, data sharding, replication and caching for efficiency. A microservice architecture with containerization and orchestration using NoSQL database for seamless storage and UI design in React.
- "Secure User Authentication System" (*React, Go, JWT, HTTP APIs, RESTful Services, MySQL*): Created a reliable token-based JWT authentication with registration, hashing, and expiry, enhancing security. Compliant with REST principles for scalable HTTP API, ensuring microservices security.
- "Task Tracker" (*Full-Stack Next.js Web App, Firebase*): Executes CRUD (Create, Read, Update, Delete) operations, integrating user authentication for fortified access control, ensuring robust data management and enhanced security measures while designing frontend in next.js.
- "Big Data Logs Analysis" (*Apache Spark, Hadoop, HDFS, Apache Kafka, PySpark*): Utilized Kafka producer-consumer pattern for efficient data ingestion, Spark for batch processing, and Parquet for storage. Conducted exploratory data analysis (EDA) on logs.

Experience

Backend Developer   *March 2024 – Present*

***Frugal Innovation Hub**, Santa Clara, California, USA*

- Advised transition from NoSQL Firebase to relational database for a Digital Library Management System tailored for African Libraries, optimizing management of < 1GB data, reducing complexity. Saved $12.41 monthly in development costs by utilizing Supabase (free tier) over AWS RDS.

Lead Software Engineer   *February 2020 – August 2021*

***Capgemini Limited**, Pune, Maharashtra, India*

- Led a team of 17 consultants to deliver successful projects, earning client recognition. Took the initiative to lead incident resolution, change requests, and complex root-cause analysis. Ensured timely deliveries through rigorous performance testing and conducted team performance reviews.
- Collaborated across teams to deliver optimal solutions and milestone-guided effort estimations for new customer requirements in three-tiered architecture, applying relational databases, SQL core data services, and object-oriented programming in back-end development.
- Proactively resolved critical production bugs, debugging complex datasets, preventing 102 workflow lockouts within tight deadlines. Conducted manual workflows recovery in the absence of backup, showcasing problem-solving, attention to detail and high-quality work.

Senior Software Engineer   *September 2015 – February 2020*

***Infosys Limited,** Gothenburg, Sweden + Pune, Maharashtra, India*

- Utilized RTC/RQM automation suite, performance tuning tools, and SQL trace for swift code optimization and enhancement.
- Executed all stages of Software Development Life Cycle (SDLC) for 7 people team in an agile framework, from gathering, analyzing, and evaluating business and user requirements to QA User Acceptance Testing, post-go-live support, and business process re-engineering.
- Boosted 12% client's revenue in end-to-end implementation of a Supplier Lifecycle Management incorporating a customized Model View Controller (MVC) design pattern and optimized workflows which was evaluated through thorough financial analysis tracking pre- and post-implementation.
- Maintained 95% Service-Level Agreement (SLA) adherence by consistently meeting project milestones and aligning solutions with client expectations.
- Established seamless data exchange using SOAP protocol and Remote Procedure Calls (RPC), enhancing system interoperability and performance.