

# Shivam Dalmia

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## Software Engineer

Accomplished Senior Software Engineer with 8+ years of experience, specializing in Java and distributed systems. Experienced in designing and operating scalable, fault-tolerant enterprise software solutions, evidenced by significant performance improvements and reliability enhancements in various projects. Adept at mentoring and fostering team collaboration, with a keen focus on delivering high-quality, easily maintainable code.

### CORE SKILLS

**Programming:** Java • JavaScript • Typescript • React • jQuery • HTML/CSS • Python • C/C++ • Bash • Shell Scripting

**Tools/Technologies:** Spark • Kafka • Spring Boot • NodeJs • Docker • Kubernetes • J2EE • HTTP • REST • SOAP • XML • JSON • MongoDB • NoSQL • RDBMS/SQL • Cloud Technologies – AWS, S3 • Junit/Jest/Mockito • Maven/Gradle/Ant (Ivy) • Splunk • Swagger • Jenkins • JIRA • Git/Bitbucket • SonarQube • Linux • Eclipse/IntelliJ

**Methodologies/Paradigms:** Agile • Object Oriented Programming and Design • Design Patterns • CI/CD • Microservices • RESTful services

### EXPERIENCE

**ALIGN TECHNOLOGY** | San Jose, CA

**Mar 2023-Oct 2024**

#### Full-Stack Engineer

Developed and maintained features for the Treat Software Platform, used for managing and streamlining processes from order placement to manufacturing and delivery for different Aligner offerings; and for the MES Fab platform, used for order flow management, defect logging and packaging.

*Technologies:* • Java • JBoss • SQL • J2EE • Linux • Kafka • Docker • SOAP/WSDL

- Reduced failure rates for orders by over 90% at the asset (i.e., Xray/photo) validation stage by fixing race conditions and other issues.
- Worked to measures that led to overall 30-40% performance improvements by using caching and reducing DB read/writes.

**CISCO** | San Jose, CA

**Jun 2020-Mar 2023**

#### Software Engineer

Developed and maintained features for Cisco's DNA On-Prem network management interface as part of the Plug-N-Play (PNP) team. Engineered backend (Java) and frontend (React) code. Coded, deployed, and tested features on Cisco clusters and networking devices using Docker, Kubernetes & Cisco IOS.

*Technologies:* Java • React • Linux • Docker/Kubernetes • Cisco IOS

- Reduced page load time by 30% and improved customer experience by overhauling UI to use modern widgets, customizing elements, and improving search using backend APIs.
- Led to measures that improved performance by 40% by simulating hundreds of devices using Docker to test performance at scale.
- Minimized failure rates by 90% for image installation due to space issues by designing and implementing a feature that dynamically inserted actions into workflow based on device type and image size.

**AMAZON DEVICES** | Sunnyvale, CA**Jun 2019-Sep 2019****Software Development Engineering Intern**

Established frameworks for Alexa's speech recognition engine. Researched and applied Intel's Deep Neural Network Library (DNNL) for real-time speech inference.

*Technologies:* C++11 • C • Deep Learning

- Improved matrix multiplication performance by 60% for voice recognition and responses by transforming the system from open-source library to Intel math kernel library (MKL) to match Intel cloud processors; adapted for C++ and C in production.

**DELOITTE CONSULTING USI** | Bengaluru, India**Oct 2015-Sep 2018****Consultant, Associate Software Developer**

Developed for analytics framework to acquire, prepare, and analyze large, delimited text data using Apache Spark. Built and maintained REST/JSON micro-services for ingestion, dataflow execution, querying, and retrieval. Drove collaborative team success by participating in engineering standards board, mentoring junior team members, and leading knowledge transfer sessions for new hires. Received multiple awards for delivery and initiative.

*Technologies:* Java • Spark • Spring • Hadoop • Docker • JUnit • Git • Camunda • Object Oriented Design

- Improved analysis performance by up to 70% in certain scenarios by using Spark to create complex analysis and query operations and building tools to evaluate results and performance of operations.
- Led implementation and design of features using Java and Spring, facilitating analytics, querying, ETL, dataflow-building using Spark and Spark SQL, and NFRs.
- Led best practices and standards for team of 8 associates and 3 senior developers as code review gatekeeper.

**ALGONOMY (formerly MANTHAN)** | Bengaluru, India**Mar 2015-Sep 2015****Software Engineer**

Backend & Frontend software development for a retail analytics tool to drive algorithmic customer engagement.

*Technologies:* Java • JSP • JavaScript • HTML • CSS • SQL • JDBC • Hibernate

- Worked on porting existing JDBC code to ORM model (Hibernate) as proof-of-concept.
- Developed a UI using jQuery, HTML, CSS to display real-time user data from an AWS server.

**EDUCATION****Master of Science, Computer Science** • GPA 3.6/4.0**Sep 2018-Jun 2020***University of California, Los Angeles* • Los Angeles, CA**Bachelor of Engineering, Computer Science** • GPA 9.3/10**Sep 2010-Jun 2014***Ramaiah Institute of Technology* • Bengaluru, India**PROJECTS & PUBLICATIONS**

**Spark Intelligent Caching Recommender:** A tool to inform a user which datasets in a Spark DAG execution plan would be a suitable candidate for being cached. • 2020

**Automatic Text Summarizer:** A tool for summarizing text using extraction techniques and replacing certain words with synonyms. Developed in Python using the principles of TextRank and WordRank; *Published* as "Automatic Text Summarizer," in International Conference on Advances in Computing, Communications, and Informatics (ICACCI) • 2014