

## MANOJ VIHARI MACHINA

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### PROFESSIONAL EXPERIENCE

#### Clarivate, Bangalore, IN, *Software Engineer*

Aug 2022 – Present

- Lead Java backend development across multiple projects, ensuring adherence to timelines and standards. Collaborate on requirements gathering and design calls, and translate business needs into technical solutions.
- Resolve backend bugs through systematic debugging, ensuring software reliability. Manage bug triaging and implementation for project integrity.
- Manage multiple projects, ensuring on-time delivery. Facilitate cross-functional collaboration to achieve project objectives.

#### Project Experience:

- **Data Explorer:**
  - Developed Java 8 based Spring Boot microservices for a data analytics project, focusing on optimizing data retrieval and real-time calculation speed based on user query patterns and business logic requirements.
  - Initiated a Proof of Concept (POC) to enhance database query performance, implementing caching strategies and leveraging Redis Cache model for efficient data retrieval.
  - Designed and implemented pre-computation logic to improve user experience and accelerate data retrieval speeds, contributing to enhanced project performance.
- **Caching Mechanism for Authorization Service:**
  - Implemented caching solutions for multi-level entitlements, addressing the challenge of efficient data retrieval. Designed and executed a process flow to update Redis cache, ensuring real-time data availability and optimization.
  - Utilized AWS Lambda and SQS to automate processes triggered by changes in the user database, enhancing efficiency and reducing manual intervention.
  - Engineered an optimized database model to facilitate faster retrieval of entitlements, implementing a synchronization mechanism between the master database and the cache database for seamless data consistency and improved performance.
- **Optimized Bulk Data Download Service**
  - Enhanced the Bulk Data Download Service, an AWS Lambda-based solution for downloading large datasets in CSV format, addressing memory constraints and performance issues.
  - Implemented optimization techniques by utilizing stream-based querying and leveraging AWS S3 multipart upload functionality. This approach significantly reduced memory overhead on Lambda, ensuring smooth creation of CSV files even with millions of records.
  - Enabled the Lambda function to query data from both Druid database and Parquet files stored in S3 bucket using S3 select, enhancing flexibility and efficiency in data retrieval for users.

#### Tata Consultancy Services (TCS), Bangalore, IN, *Software Engineer*

Nov 2020 – Aug 2022

#### Project Experience:

- **Migration Factory Hub**
  - Developed Migration Factory Hub at TCS, automating migration to Azure Cloud. Features include infrastructure code generation and pipeline automation for efficient workload migration.
  - Led Java development, organized release meetings, and coordinated with delivery teams. Ensured project alignment and client satisfaction through daily development activities and client demos.

### EDUCATION

**Vignan's Foundation for Science Technology and Research (VFSTR)**  
*Electronics And Communication Engineering (ECE, 2016-2020)*

CGPA: 9.4

### SKILLS

- Java • Spring Boot • PostgreSQL • Cloud (AWS, Azure) • Event Driven (AWS Lambda) • Docker
- Version Control (Git) • Web Development (HTML, CSS, JavaScript, ReactJS) • Agile Methodologies
- Microservices • Project Management • AWS SDK (S3, SQS, Lambda) • Good Communication

### VOLUNTARY EXPERIENCE

- Co- Founder & Technical Architect of Chatfy (WhatsApp E Commerce Solution)
- Co-Founder of Raw Helping Hands (NPO)