

Vandana Damodara . Jarvis Consulting

I am detail-oriented, and an inquisitive problem solver who loves to build simple solutions for complex real-world problems. I have more than three years of experience in the industry as an IT professional, this experience helped me to build an analytical, detail-oriented mindset and also exposed me to the work culture and methodologies followed in large-scale industry. I believe that working with/understanding lower levels of abstraction behind a program is a prerequisite to writing highly optimized code. I enjoy creative problem solving and getting exposure to multiple projects. I love working in a collaborative work environment. I am a Highly proficient, diligent, and possess excellent Analytical thinking capability. As a Junior Data Engineer at Jarvis, I participated in various challenging projects using an Agile/Scrum framework that allowed me to become proficient in technologies like Java, Git, SQL, Bash, Maven, and Docker. My experiences have taught me how to think outside the box when working, and I always strive to find the most optimized solution to the problem. Learning new technologies and applying them excites me as a software because it solidifies my skillset and helps me grow along with the industry without falling behind.

Skills

Proficient: Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git

Competent: Hive, Spark, Hadoop, C++, Python, Hadoop/HDFS

Familiar: MySQL, Scala, NoSQL, VBA, Unix

Jarvis Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_VandanaDamodara

Cluster Monitor [GitHub]: Developed a Cluster Monitoring agent, which is used to monitor and collect data of various host machines connected through a network. The data that is collected includes hardware specifications, activity, and performances of machines in the cluster. The hardware usage data is persisted in a PostgreSQL Database, an RDBMS database provisioned with Docker Containers. Bash Scripts are used to initialize the process by creating a PostgreSQL container using Docker. Bash scripts are also used to monitor the host usage and host information data. This system uses crontab to collect real-time data every minute to generate statistics regarding resource utilization. The Monitoring agent sends the data to a database for storage and further analysis.

Core Java Apps [GitHub]:

- **JDBC App:** Constructed the JDBC application to perform CRUD operations using DAO and DTO design patterns on a PostgreSQL retail store's database
- **Grep App:** Programmed with Java 8 and leveraged its latest features, including the stream API and lambda functions, to develop an application similar to the Linux built-in grep feature. The program searches recursively through a root directory to map out all files and finds the lines that match the user-specified Java regular expression. The compilation was handled with the Maven tool, and the final product was packaged into a Docker container using Dockerfiles.
- **Twitter App:** Developed a Java command line CRUD application capable of posting, viewing, and deleting tweets from a user's Twitter account. Utilized Twitter REST API and leveraged HTTP for client-server communication. The application follows the MVC architecture and comprises multiple layers to facilitate development and testing. Spring Boot was used for dependency management, Docker for deployment, and Maven for building and packaging the application.
- The projects were designed, implemented, tested, and deployed with; *Git, Docker, Bash Scripts, CentOS 7, PostgreSQL, Java 8 [Lambda/Stream Functions], Apache Maven, Mockito, DAO Design Pattern, Spring, JDBC API, Twitter Rest API, and Google Cloud Platform*

Hadoop [GitHub]: Set up a Hadoop cluster on the Google Cloud Platform to handle and analyze big data, and optimally execute queries. Used Apache Hive to execute HSQL queries, and Apache Zeppelin to store all the results in a notebook. Data was stored in an HDFS volume, and queries were further optimized by using partitioned tables and columnar.

Springboot [GitHub]: Made a trading application that allows users to manage accounts, quotes, and fetch stock information from IEX Cloud. All the components were implemented using Java, and Spring Boot was used to manage the dependencies, and have Apache Tomcat be used as a WebServlet. IEX Cloud APIs were used to retrieve the latest stock information, and PostgreSQL was used to create database schemas. Maven was used to manage the Java dependencies, and testing was done using JUnit 4. The project was then deployed on DockerHub as two docker images, where one image is the Postgres database that would set up all the relations, and the other image is the trading app itself.

Highlighted Projects

DataBase Design for Retail: Designed a Relational Database and created Entity Relationship Diagram for Retail Customer containing various Entities. Implemented by creating many tables having primary keys and foreign keys to recognize the relationship, which helped ease the CRUD operations on the Database. Performed various SQL Queries on the Database. This project was developed using IBM Db2

Professional Experiences

Software Developer, Jarvis (2021-present): Worked as a Data Engineer in a small Agile/Scrum environment to develop and implement solutions to various problems within the Jarvis team. The projects were implemented using Git/GitHub, Docker, Bash Scripts, CentOS 7, PostgreSQL, Python, Java SE 8, Apache Maven, JDBC API. Contributed to all the stages of the software development cycle through continuous participation in scrum meetings and Agile best practices. Used Linux environment for all the projects.

System Engineer, Tata Consultancy services (2011-2014): Designed and Developed Database Models for various data engineering projects. Worked on Database designing and assisted with reviewing the database design model. Contributed to SDLC process and Followed the Agile/Scrum team framework for team collaboration. Worked on various Project activities related to Relational Database management systems. Assisted on few Data ingestion projects from RDBMS to Big data. Worked on Hive queries. Examples of tools that I worked with include Java, SQL, IBM DB, Oracle, MySQL Docker, Linux Bash, and many other important technologies all while crafting solutions to real-world problems.

Education

Veer Surendra sai university of Technology (2007-2011), Bachelor of Technology, Electronics and Telecommunication

Miscellaneous

- AZ-900: Microsoft Azure Fundamentals
- IBM-Introduction to Data Engineering
- IBM-Introduction to Relational Databases (RDBMS)
- IBM-Databases and SQL for Data science with python