

# Saghana Mahesh Sarma . Jarvis Consulting

As a seasoned software developer with a Master of Science in Computer Science from Concordia University, I possess a combination of practical knowledge and rigorous academic principles. I have gained extensive experience in design patterns, Agile methodologies, and effective project management throughout my professional trajectory. The dynamic nature of the software industry and the prospect of skillfully resolving complex issues are two aspects that I find particularly exciting. I am passionate about ensuring an optimal user experience through innovative solutions and efficient debugging. My academic foundation, coupled with practical experience, fuels my enthusiasm for staying at the forefront of technology. I am eager to discuss how I can bring substantial value to your team's goals.

## Skills

**Proficient:** Java, Javascript(React,Node.js), SQL,PostgreSQL, Agile/Scrum, Git

**Competent:** Python, HTML/CSS, MongoDB, Amazon Web Services(AWS,S3,Lambda), C

**Familiar:** C++, Redis, Docker,Kubernetes, Kotlin, Linux/Bash

## Jarvis Projects

Project source code: [https://github.com/jarviscanada/jarvis\\_data\\_eng\\_SaghanaMaheshsarma](https://github.com/jarviscanada/jarvis_data_eng_SaghanaMaheshsarma)

**Cluster Monitor** [GitHub]: Optimizing the efficient operation of a Linux cluster composed of numerous nodes/servers running CentOS 7, the Linux cluster monitoring agent aims to collect comprehensive hardware characteristics for each node and deliver real-time resource monitoring, encompassing CPU and memory data. Employing a reliable Relational Database Management System (RDBMS), the agent stores the data, empowering the Linux cluster management team to generate analytical reports for informed resource allocation.

**Country Club Database Project** [GitHub]: Executed a comprehensive exploration of SQL in the CD (Country Club) Database Project, demonstrating fluency in fundamental and advanced queries, including JOIN operations and aggregations with strings. These skills are applied to a dynamic dataset simulating a Country Club's membership system, facilities, and bookings. This project showcases a practical and nuanced understanding of SQL, underscoring its applicability in effective database management and analysis.

**Core Java Apps** [GitHub]:

- **Stock App:** The Stock Quote App fetches real-time stock quotes from a REST API endpoint and updates the database housed within a Docker container with the retrieved data. Users can interact with the application to buy and sell stocks, view their portfolio, and fetch new stock quotes. The app leverages JDBC for database connectivity and incorporates Mockito for unit and integration testing.
- **Grep App:** The Java Grep App is a command-line utility inspired by Linux grep, allowing users to search for and extract lines matching a specified pattern within files. Built in core Java, it supports both Docker and JAR execution for efficient pattern searching in diverse environments.

**PySpark Fundamentals** [GitHub]: Demonstrated proficiency in Extract, Transform, Load (ETL) operations using PySpark through the creation and execution of a comprehensive project. It covers various topics such as data extraction from diverse sources, transformation using PySpark DataFrame operations, and loading into managed tables in Databricks. The exercises are designed to enhance understanding of PySpark and its applications in real-world data processing scenarios.

## Highlighted Projects

**Book Inventory System** [GitHub]: Crafted an advanced Book Inventory System to streamline operations across multiple bookstores, offering dynamic inventory control for books with identical copies. The system proactively notifies customers upon stock depletion, enhancing user experience. Engineered with Node.js and leveraged the Knex ORM alongside a PostgreSQL database, ensuring a powerful and scalable solution for comprehensive book management.

**Seller Portal:** Contributed to the development of an enterprise application catering to cosmetic companies' brands and vendor partners. Played a key role in designing and implementing features such as Tracking and Notification Delivery, ads, and warehouse management. Facilitated communication between clients and the sales team, analyzing products to improve delivery efficiency.

**Face Mask Detection System:** Engineered an innovative Face Mask Detection System leveraging a convolutional neural network, trained on diverse datasets from Kaggle. Developed with proficiency in Python and cutting-edge AI frameworks,

the system stands as a pivotal contribution to public health and safety, accurately discerning various face mask types. This project reflects a commitment to utilizing technology for societal well-being, showcasing my expertise in artificial intelligence and computer vision.

## Professional Experiences

**Software Developer, Jarvis (2023-Present):** Currently undergoing intensive training at Jarvis, immersing myself in diverse technical stacks. This dynamic learning environment is enhancing my skills in linux, bash, SQL, and I am excited to apply this knowledge to real-world scenarios in the near future.

**Full Stack Developer, Codingmart Technologies (2019-2021):** Developed and maintained end-to-end web applications, demonstrating fluency in both backend and frontend development. Created landing pages, dashboards, and web applications, involved in code reviewing, debugging, and fixing issues. Actively participated in the design and development processes to create an engaging experience for users using React JS. Developed robust and scalable web applications using Java, leveraging object-oriented principles and frameworks. Experienced in NodeJS using frameworks such as Express to deliver performant and scalable REST APIs. Assisted in the deployment and maintenance of production applications, ensuring high availability and scalability. Possess a working knowledge of microservices and server orchestration.

## Education

**Concordia University (2021-2023),** Masters of Applied Science, Applied Computer Science

**Sri Krishna College of Engineering and Technology (2015-2019),** Bachelor of Engineering, Computer Science

## Miscellaneous

- Volunteer, inCyber: Passionate volunteer in cybersecurity and software development to stay updated on industry trends and foster a collaborative community
- Gaming :Enjoy strategic thinking and teamwork playing board games
- Creative Writing : Curating content for a photography page, showcasing a blend of creativity and effective communication skills