

# SAURABH SAMPATKUMAR LOYA

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## SUMMARY

Solution-oriented Software Engineer with a Master's in Computer Science and 2+ years of work experience, specializing in Backend & Full-Stack Development, cloud computing, and distributed systems. Skilled in problem-solving and innovation, with a customer-centric approach to building scalable solutions and optimizing system performance for global enterprises.

## SKILLS AND CERTIFICATIONS

**Languages:** Python, Java, HTML, CSS, JavaScript

**Database:** MySQL, MongoDB

**Framework & Libraries:** Spring, Angular, Junit, Mockito, React, Flask, Django, Apache Airflow, Apache Spark, Apache Kafka, Numpy, Pandas, Spacy, PyTorch, Tensorflow, Selenium

**Visualization Tools & Development:** Tableau, Power BI, Git, Jira, Docker, Microsoft Office, Microsoft Excel

**Certification:** AWS Certified Cloud Practitioner, Azure Fundamentals

## EDUCATION

**The University of Utah**

Salt Lake City, Utah

Master of Science in Computer Science | **Graduate Teaching Assistant** | **GPA: 3.9/4**

Aug 2023 – May 2025

**Coursework:** Graduate Algorithms, Distributed Systems, Software and System Security, ML, NLP, Visualization

**MIT World Peace University**

Pune, India

Bachelor of Technology in Computer Science and Engineering | **Merit List Scholarship** | **GPA: 3.8/4**

Aug 2017 – May 2021

**Coursework:** Data Structures, Database Management System, Software Engineering and Project Management

## WORK EXPERIENCE

**BMW Financial Services NA**

Salt Lake City, Utah

*Data Scientist Intern*

Jan 2025 - May 2025

- Prepared a high-quality dataset by performing **data mining, exploratory analysis, and data cleaning and validation** efforts, enabling the development of a machine learning-driven loan optimization model impacting \$100M–\$300M in daily originations.
- Executed intricate **feature engineering** on a high-dimensional **unstructured dataset** to identify key predictors for loan selection.
- Built **interactive dashboards** to track loan performance, enabling data-driven decisions for a \$9B+ financial portfolio.

**Volkswagen Group Technology Solution**

Pune, India

*Software Engineer*

Aug 2021 - July 2023

- Engineered a global survey platform adopted by 10+ Volkswagen entities as a scalable **Software as a Service (SaaS) solution**, enabling efficient multi-region survey creation, distribution, and analytics to drive data-informed decision-making.
- Developed a Query Management System application with backend automation and **RESTful APIs** to streamline inquiry routing, enhance tracking transparency, and reduce resolution time for HR inquiries across departments.
- Built and optimized an invoice-based OCR pipeline using advanced image processing techniques and **Azure Cognitive APIs**, achieving an 8x speedup in document processing and **15% improvement** in data extraction accuracy.
- Integrated **LLM and NLP** into an internal **chatbot**, enhancing human-like responses and expanding its **knowledge base by 30%**.
- Designed and tested backend services using **JUnit** and **Mockito**, validating business logic and API–database interactions.
- Collaborated in **Agile** ceremonies, contributed to **peer code reviews** and **CI/CD** pipelines to deliver reliable, maintainable software.
- Led the refactoring of complex modules and **resolved 50+ production issues**, strengthening codebase quality and system stability.

## PROJECTS

- Distributed Key-Value Store Using Raft Consensus Algorithm:** Developed a fault-tolerant, replicated key-value store in Golang using Raft, ensuring strong consistency, linearizability, and 4s leader failover with log replication and persistence.
- Scheduling Platform for VCs:** Designed and developed a scheduling system to streamline investor–entrepreneur interactions by automating meeting coordination, reducing manual follow-ups, and improving workflow efficiency.
- CITI Bike Rental Data Analytics and Forecasting:** Conducted EDA on 5M+ ride records and developed a predictive model using Apache Spark and Facebook Prophet model, optimizing CITI Bike demand forecasts and inventory.
- LLM based Recommendation System:** Crafted a medicine recommendation system using Llama 2, LangChain, and Chroma DB with Retrieval-Augmented Generation (RAG), achieving 90% accuracy in providing medication.

## HONORS AND RECOGNITION

- Innovation Award** in recognition of creative thinking in automating training pipeline of chatbot using LLM.
- Achievers Award** for successful project deliverable with Customer Satisfaction Survey rated above 9.