Koustav Mallick

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Professional Experience

Deutsche Bank   Jul 2019 – Aug 2023

Senior Software Engineer (Big Data)| Agile, Spark, Scala, GCP, Bash, Maven, SQL

- **Generated over $3M annual savings** and **increased data processing efficiency by 53.92%** by leading the development of a **GCP-based, maintainable and automatic** decision engine using Spark Scala and Maven. Earned the India Excellency Award for this groundbreaking work.
- **Reduced development time by over 40 hours monthly for 16 teams** by designing and implementing an **Airflow DAG Generator** using Python and Maven. Facilitated knowledge-sharing sessions and provided training to ensure seamless adoption across teams.
- **Saved over $1M of annual revenue, eliminated COGNOS licensing costs** and **streamlined report delivery** by developing a **scalable report handler** system using Python, Java(Spring-Boot), Maven and SQL. Led requirements gathering sessions, coordinated with cross-functional teams, and ensured timely delivery of the reporting solution.
- **Enhanced ETL performance time by 15x** and **decreased deployment time by 30+ hours** by building **maintainable, scalable and auto-configurable** Spark-Scala Framework using Maven.
- **Reduced cost of $3M of annual revenue** over **Control-M** licensing **by creating "Orchestrator"**, an in-house scalable job scheduler to **automate script running while maintaining order of execution** using **Java(Spring-boot** and **webservices**) and **SQL**.

Technical Skills

Big Data: Apache Spark, PySpark, Hadoop, Hive, Apache Airflow**,** Apache Kafka, Apache Flink

Cloud: GCP (Certified Architect), AWS

Languages: Python, Java, Scala, JavaScript, C++, Bash, SQL

Technologies: Maven, Spring Boot, Git, Microservices, RESTful Web Services

Others: CUDA, OpenMP, GitHub Actions

Education

Purdue University	*Master of Science in Computer Science (GPA: 4.00 / 4.00*	Aug 2023 - May 2025
Jadavpur University	*BE in Electronics and Tele-Communication (GPA: 8.00 / 10.00)*	Jul 2015 – May 2019

Educational Experience

Purdue University   Sep 2023 – Present

Graduate Research Assistant

- **Cardi-GPT** - Helped local physicians and medical students by developing an Expert System to determine type of cardiovascular disease and proposing possible solutions to it.

Developer - PFW ChatBot | *React.js, Flask, PyTorch, TensorFlow*

- Improved response time for Purdue University Fort Wayne's ChatBot by 30% by designing and building it using Google PaLM and FAISS. This chatbot also utilized a responsive UI implemented with React.js and Flask.