

Siva Kumar

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Professional Profile

Motivated and technically proficient Data Engineering graduate with a solid foundation in Python, SQL, and big data frameworks such as Spark and Hadoop. Experienced in building, optimising, and maintaining data pipelines to support analytics and business intelligence. Adept at transforming raw datasets into structured, high-quality data for analysis and reporting. Recognised for a collaborative approach, strong problem-solving ability, and commitment to continuous learning to deliver scalable and efficient data solutions.

Key Skills Summary

Technical Skills

Languages: Python, SQL

Libraries: PySpark, mrjob

Big Data: Apache Spark, Hadoop, MapReduce, Resilient Distributed Dataset

Database: PostgreSQL, SQLite, MySQL

Personal Attributes

Analytical and detail-oriented

Problem solving mindset

Continuous learner

Collaborative communicator

Passion for data quality and best practices

Achievements

- Proactively observed and learned debugging techniques from the IT team, enabling independent resolution of recurring issues and reducing store downtime.
- Systematically reorganised existing stock to optimise space and accommodate new inventory efficiently.
- Enhanced fruit-picking accuracy as a second checker, improving overall team productivity by 80%
- Supported store management and staff with clerical and back-end tasks such as inventory management, allowing the floor team to prioritise customer service and revenue generation.

Professional Experience

IT Support Analyst (Voluntary)

April 2022 - Present

APG and Co Pty. Ltd., Sydney

- Efficiently provided first-level troubleshooting and user support for staff across hardware and software issues, reducing downtime due to such errors by over 200%
- Accurately assisted with device setup, software installations, and email configuration for new and existing users, decreasing time taken for set-ups by 80%
- Promptly coordinated with internal IT teams to escalate and resolve advanced technical issues

Notable Projects

Frequent Itemset Mining

- Data Engineering project to implement itemset mining techniques for identifying frequent patterns in datasets with Python, PySpark, Dataframe and RDD.
- Designed and tested frequent itemset mining algorithms using PySpark dataframe and RDD.
- Extracted high-frequency patterns efficiently.
- Enhanced knowledge of distributed data mining and Spark workflows.
- Collaborated to analyse problems and implemented tailored solutions independently.

Anomaly Detection in Sensor Readings

- Data Engineering project to detect anomalies in sensor-generated data using distributed computing with Python, Hadoop and Map Reduce.
- Implemented MapReduce jobs for large-scale anomaly detection.
- Detected anomalies in large datasets with scalable methods.
- Strengthened understanding of Hadoop ecosystem and distributed processing.
- Worked collaboratively to identify issues and deliver individual solution approaches.

Similarity Join in E-Commerce

- Data Engineering project to perform similarity join operations on e-commerce transaction datasets with Python, PySpark, RDD and broadcasting.
- Implemented similarity joins with broadcasting for optimisation and validated output on sample datasets.
- Produced optimised joins and accurate similarity matching.
- Learned Spark join strategies and RDD handling.
- Teamed up to diagnose the challenge and executed solutions through our own methods.

Professional Development

IT Professional Year Programme (ACS)

Performance Education, Sydney, NSW

May 2025 - Present

- Trained in Australian Business Culture, industry practices, technical communication and presentation skills.
- Gaining practical experience to enhance employability in the IT sector

Education

Masters in Information Technology

University of New South Wales

Feb 2023 - Mar 2025

Relevant subjects: Data Services Engineering, Big Data Management, Database Management System, Database Implementation

Bachelors in Electronics Engineering

Singapore University of Social Sciences

Jan 2015 - Mar 2020

Certification

SAP-ERP

Lithan Hall Academy Pte Ltd, Singapore

2019

Interest and Hobbies

- Learning about technologies in other IT sectors
- Study aviation incident case studies to learn human factors, risk management, Crew Resource Management and problem-solving.

Reference

Available on request