Siva Kumar

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LinkedIn | Github | Master Resume

PROFESSIONAL SUMMARY

Recent Master of Information Technology graduate from UNSW with strong foundations in database systems, data analytics, data engineering, software development, and AI tools and techniques. Skilled in Python, SQL, Computer Vision, Natural Language Processing and big data technologies (Hadoop, Spark), with hands-on project experience in developing data pipelines, analytical tools, and predictive models. Currently seeking associate, junior, or internship opportunities in data engineering to contribute effectively and continue professional growth.

EDUCATION

University of New South Wales (UNSW)   **Sydney, Australia**

Master of Information Technology in Database Systems   Feb 2023 – Feb 2025

- **Core Courses:** Data Structures and Algorithms, DBMS, DBMS Implementation (PostgreSQL), Big Data management, Data Services Engineering, Information Retrieval and Web Search

Singapore University of Social Sciences (SUSS)   **Singapore**

Bachelor of Engineering in Electronics (Honours)   Jan 2015 – Jan 2020

- **Core Courses:** Object Oriented Programming, Engineering Economic Analysis, Principles of Project Management

CERTIFICATIONS

Lithan Academy Pte Ltd   **Singapore**

SAP – ERP   Apr 2019 – Jun 2019

- IT-DE-405S-1 Develop proof of concept
- IT-RG-401S-1 Determine business expectations and needs
- ICT-PMT-4002-1.1 Programme Management
- ICT-SNA-4006-1.1 Change Management

PROJECTS

- **Anomaly Detection in Sensor Readings** (Hadoop MRJob)
  - Scalable MapReduce pipeline processing 10K+ humidity readings for anomaly detection with 100% accuracy.
  - Custom combiner, secondary sort, order inversion—real-time distributed processing, 100% test-case correctness.
- **Frequent Itemset Mining** (Apache Spark)
  - RDD/DataFrame Spark pipeline extracting top-K frequent 3-itemsets from 500K+ logs with 100% accuracy—20% faster processing.

- **Similarity Join in E-Commerce** (Spark & Jaccard)
  - o Spark pipeline with RDD transformations and prefix indexing for 1M+ records—no redundant comparisons, scalable matching.
- **Custom PostgreSQL Data Type**
  - o PersonName data type in C for PostgreSQL 15.6 with binary I/O & hashing—40% faster retrieval.
- **Join Order Optimization Engine**
  - o System R DP + greedy fallback optimizer for PostgreSQL-style trees—improved cost estimation across 10+ test queries.

SKILLSET

- **Programming**: C, C++, VHDL, Python, Rust, Data Structures & Algorithms

- **Libraries**: NumPy, Matplotlib, NLTK, Pandas, Keras, PyTorch, TensorFlow, OpenCV, Scikit-Learn, Seaborn

- **DBMS**: SQL, MySQL, PostgreSQL, PL/pgSQL, Query Optimization, Indexes, Views, Triggers, Custom Types

- **Big Data**: Hadoop, Hive, MapReduce, Spark, Distributed Computing, Shell Scripting

- **Tools**: Docker, Anaconda, GitHub, Jira, Office 365, Adobe CS

- **OS**: Windows, Linux (Ubuntu), Shell

WORK EXPERIENCE

Company	Location	Job title	Duration
Sportscraft	Sydney	Sales Consultant	April 2022 – Present
Gusto da Gianni	Brisbane	Kitchen Hand	2020 – 2022
Various Farms	Bundaberg, Atherton	Picker, Farm Hand	2020 – 2022
Bounce Hostel City Backpackers HQ	Cairns Brisbane	Housekeeping Crew Member	2020 – 2021
Challenger Pte Ltd	Singapore	Sales Assistant	2018 – 2019
Mohamed Mustafa Samsudin	Singapore	Sales Assistant	2016 – 2019

VOLUNTARY WORK

APG and Co Pty. Ltd.   Sydney, Australia

IT Support   April 2022 – Present

OTHER DETAILS AND REFERENCES

English Language Skill: Expert IELTS Band 9.0

Visa: Subclass 485 – Temporary Graduate Work Visa. No restrictions on working hours.

References: Can be provided on request.

Availability: Available to start work immediately.