**Binson Sam Thomas**

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**SUMMARY**

Data Science and Analytics graduate (Distinction) with over 5 years of professional experience in data analysis, machine learning, and software development. Demonstrated expertise in SQL, Python, Excel, and AI/ML concepts across healthcare and finance domains. Known for delivering structured mentoring and communicating technical insights effectively. Passionate about shaping future data professionals through practical instruction and guidance.

**CORE SKILLS**

Technical: Python, SQL, Excel, Pandas, OpenCV, TensorFlow, PyTorch, Oracle DB, Power BI, Feature Engineering, Machine Learning, Data Visualisation

Instructional & Soft Skills: Communication, Technical Mentoring, Curriculum Development, Critical Thinking, Analytical Mindset

**WORK EXPERIENCE**

**Asda Stores Limited** Hatfield, UK

Section Leader & Retail Associate (Part-Time) Apr 2023 - Present

* Lead and mentor the General Merchandise team, fostering a collaborative work environment to deliver outstanding operational efficiency and customer satisfaction.
* Oversee stock management, modular changes, and strategic product placement, driving a measurable 5% increase in sales for the GM department.

**University of Hertfordshire** Hatfield, UK

Casual KTP Associate | ML Research Oct 2023 – Aug 2024

* Designed and implemented a real-time fall detection system using 3D CNNs and OpenCV, enabling robust image/video analysis on large datasets (~200GB) from motion sensors and camera streams.
* Conducted in-depth data preprocessing, feature engineering, and model evaluation using Python and PyTorch.
* Developed and fine-tuned a Two-Stream Convolutional Network in PyTorch, achieving 99% accuracy and a 95% reduction in false negatives on real-world video data.
* Benchmarked different model architectures and visualised key metrics to optimise system performance, working with interdisciplinary academic and technical stakeholders.
* Managed large-scale image/video datasets and implemented preprocessing pipelines to ensure consistent data quality.

**Tata Consultancy Services** Mumbai, India

IT Analyst Dec 2017 – Sep 2022

* Led a high-performing team to achieve a 25% increase in productivity for the Risk Management System by optimizing queries and utilizing Oracle SQL Tuning Advisor.
* Engineered a custom Start of Day (SOD) dashboard, enhancing application capabilities and enabling real-time SOD status monitoring. This solution led to a 40% reduction in night support calls and improved operational efficiency.
* Played a pivotal role in the comprehensive back-end development of critical Regulatory (SEBI) changes within the Indian Capital Market for four consecutive years, ensuring the product remained at the forefront of market trends, showcasing adaptability and responsiveness to regulatory shifts.
* Improved processing speed by 30% and handled one million orders daily by integrating customer feedback and optimising SQL performance.
* Delivered knowledge sessions to junior analysts on SQL best practices and query tuning.

**EDUCATION**

**University of Hertfordshire** Hatfield, UK

Master of Data Science and Analytics 2022-2024

Grade: Distinction

Relevant Coursework: Foundation of Data Science, Neural Networks and Machine Learning, Data Mining, Applied Data Science and Analytics

**Cochin University of Science and Technology** Cochin, Kerala

Bachelor of Electronics and Communication Engineering 2013- 2017

CGPA: 7.73 / 10

**PROJECTS**

**Analysis of Data Pre-processing in Vision-Based Accidental Fall Detection (MSc Project)** Sep 2023- Jan 2024

* Implemented diverse preprocessing and feature extraction techniques to enhance an accidental fall detection system as part of the KTP Project Initiative in collaboration with the university.

**Internal Mentorship – TCS**

* Led peer mentoring sessions and trained new joiners in SQL optimisation and system analysis.
* Recognised for strong communication and structured instruction with multiple internal awards.

**ADDITIONAL**

**Languages:** Fluent in English, Malayalam and Hindi; Conversational Proficiency in Tamil.

**Awards:**

* Star of the Quarter | TCS FS Domain | Awarded in Q2 2020 and Q2 2022.
* Star of the Month | TCS FS Domain | Awarded thrice over 3 Years.
* On-the-Spot Awards | Mohammed Vaid (Manager) | Awarded multiple On-the-Spot Awards (4) along with several Team Awards (19) over 4 years.