Binson Sam Thomas

Data Scientist | AI/ML Engineer | PL/SQL Developer

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# PROFESSIONAL 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 Skills:** Python, SQL (PL/SQL, Oracle), PyTorch, TensorFlow, OpenCV, Excel, Pandas, Power BI, Machine Learning, Deep Learning, Feature Engineering, Data Visualisation, Git, CUDA
* **Core Competencies:** Data Analysis, Real-Time Systems, Retail Tech, ML Model Optimisation, Stakeholder Communication, Technical Mentoring, Agile, Curriculum Design, Research Collaboration

# PROFESSIONAL EXPERIENCE

University of Hertfordshire Hatfield, UK

Casual KTP Associate (Machine Learning Research) Oct 2023 – Aug 2024

* Designed a real-time fall detection system using 3D CNNs and OpenCV, processing 200GB of motion sensor & camera data.
* Developed a Two-Stream Convolutional Network in PyTorch, achieving 99% accuracy and reducing false negatives by 95%.
* Led feature engineering and performance benchmarking, boosting computational speed by 30%.
* Collaborated with academic teams and presented results in interdisciplinary research forums.

Asda Stores LtdHatfield, UK

Section Leader, General Merchandise (Part-Time) Apr 2023 – Present

* Lead and mentor the GM team, managing stock, layout planning, and modular changes.
* Improved floor strategy resulting in 5% sales uplift across seasonal categories.
* Recognised for operational efficiency and customer service leadership.

Tata Consultancy Services Mumbai, India

IT Analyst | PL/SQL Developer 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 | Master of Data Science and Analytics (MSc)** Hatfield, UK

Grade: Distinction Sep 2022 – Feb 2024

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

Cochin University of Science and Technology | Bachelor of Technology (B.Tech)Chengannur, India

CGPA: 7.73/10 Aug 2013 – May 2017

# SELECTED PROJECTS

Fall Detection System (MSc Thesis + KTP Collaboration)

* Built vision-based real-time fall detection with motion sensors and PyTorch models.
* Enhanced pipeline accuracy through preprocessing, feature tuning, and visualisation.

Mentorship & Internal Knowledge Sharing – TCS

* Led onboarding for junior PL/SQL developers.
* Delivered weekly knowledge sessions on SQL performance, debugging, and process automation.

# ADDITIONAL INFORMATION

Awards

* Star of the Quarter – TCS (Q2 2020, Q2 2022)
* Star of the Month – 3x recipient
* On-the-Spot Awards – 4 personal, 19 team awards

Languages

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