Binson Sam Thomas

MSc Data Science Graduate | PL/SQL Developer

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MSc in Data Science graduate with 5 years of innovative software development experience, specializing in optimizing Machine Learning models for real-time applications. Strong in project management and teamwork, eager to leverage skills for personal excellence and meaningful contributions in Data Science and Machine Learning.

# Work Experience

## Casual KTP Associate | ML Research

*University of Hertfordshire | Hatfield*

Nov 2023 - Aug 2024

Conducted research and development in a Knowledge Transfer Partnership (KTP) project during my MSc, leading to a casual employment contract. Leveraged OpenCV and 3D CNNs with CUDA acceleration for large - scale data processing in fall detection among the elderly.

Optimised preprocessing techniques to enhance the accuracy of fall detection models using 3D CNNs. Evaluated various methods to improve model performance on complex datasets.

Implemented and fine-tuned advanced deep learning models like the Two-Stream Convolutional Network within PyTorch.

Conducted performance benchmarking and visualised results using Matplotlib.

## IT Analyst

*Tata Consultancy Services | Mumbai*

Dec 2017 - Nov 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.

Improved processing speed by 30% and handled one million orders daily by integrating customer feedback and optimizing SQL performance.

Led backend development for SEBI regulatory changes in the Indian Capital Market, ensuring compliance and market relevance.

# Projects

## Analysis of Data Pre-processing in Vision-Based Accidental Fall Detection (MSc Project)

Sep 2023 - Jan 2024

Applied various Pre-Processing and feature extraction techniques to improve an accidental fall detection system as part of the KTP Project Initiative in collaboration with the university.

## SASH Chat Bot (Group/Personal Project)

Developed a chatbot using the RASA framework to enhance user interaction with the University.

Feb 2023 - Present

# Core Skills

OpenCV, PL/SQL, Tensor Flow, PyTorch, Oracle Database, Python, Pandas, R Programming, Jupyter Notebook, Excel, Analytical Mindset, Intelligence Gathering, Critical Thinking

# Education

## University of Hertfordshire

**Master** Data Science and Analytics GPA 4.313 / 5

## Cochin University of Science and Technology

**Bachelor of Engineering**

GPA 7.7 / 10

Sep 2023 - Feb 2024

Jan 2013 - Dec 2017

# Awards

## Star of the Quarter

*TCS FS Domain*

Awarded in Q2 20220 and Q2 2022

## Star of the Month

*TCS FS Domain*

Awarded thrice over 3 Years.

## On-The-Spot Awards

Awarded multiple On-the-Spot Awards (4) along with several Team Awards (19) over 4 years.