Binson Sam Thomas

PL/SQL Developer | AI/ML Research

[*binsonsam.t@gmail.com*](mailto:binsonsam.t@gmail.com)[*https://www.linkedin.com/in/binson-sam-thomas*](http://www.linkedin.com/in/binson-sam-thomas)

*07833 886 286*

*Hatfield, UK*

MSc Data Science graduate with 5 years of software development experience, specializing in deploying machine learning models and optimizing them for real-time applications in healthcare settings. Experienced in leveraging Python, TensorFlow, and PyTorch to develop predictive models and collaborate with experts in AI/ML.

# Core Skills

Predictive modeling, Deep learning (TensorFlow, PyTorch), Programming: Python, PL/SQL, R, OpenCV, CUDA,

Model Deployment: Model validation, real-time data processing, Git, MS Office, Keras, Innovative, Solve Complex Problems, Statistics.

# Work Experience

## Casual KTP Associate

*University of Hertfordshire and Delight Supported Living | Hatfield*

Oct 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.

Processed 200GB+ of motion data using OpenCV and 3D CNNs with CUDA, enhancing computational speed by 30% and reducing fall detection false negatives by 20%. Evaluated various methods to improve model performance on complex datasets.

Developed and fine-tuned Two-Stream Convolutional Network in PyTorch, improving model accuracy by 10%. Conducted benchmarking and visualized performance metrics, reducing prediction errors by 15%.

## IT Analyst, PL/SQL Developer

*Tata Consultancy Services | Mumbai*

Dec 2017 - Sep 20

Led a high-performing team to achieve a 25% increase in productivity for the Risk Management System by optimising queries and utilising Oracle SQL Tuning Advisor using data-driven solutions.

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.

# 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.

# Education

## University of Hertfordshire

**Master of Science** Data Science and Analytics

Core Modules: Foundation of Data Science, Neural Networks an Machine Learning, Data Mining, Applied Data Science and Analytics

Grade: Distinction

## Cochin University of Science and Technology

**Bachelor of Technology** Electronics and Communication Engineering Grade: 7.73

Aug 2013 - Jul 2017

# Awards

## Star of the Quarter: 2, Star of the Month: 2, On the Spot Awards: 19

*TCS FS Domain*