

Mohith Thuraiyur Kirubanandham

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PROFESSIONAL SUMMARY

MSc Data Science student at the University of Surrey with a BSc in Artificial Intelligence and Data Science. Builds data and machine learning projects in Python, from stroke-risk and fake news detection models to a tested data pipeline that monitors the NIFTY 50 stock index. Experienced in data preprocessing, exploratory data analysis, feature selection and REST APIs. Seeking a Data Analyst or Data Science placement in the UK.

EDUCATION

MSc Data Science

University of Surrey, Guildford, UK | 2026 – 2027

Relevant modules: Statistical Data Science; Machine Learning for Data Science; Natural Language Processing; Database Systems and Business Intelligence; Business Analytics with Data Visualisation; Cloud Computing.

BSc Artificial Intelligence and Data Science

Rathinam College of Arts and Science, Coimbatore, India | 2023 – 2026

Coursework: Python, deep learning, data analysis, databases, data visualisation, predictive analytics.

TECHNICAL SKILLS

Programming Languages: Python, SQL (MySQL), R, JavaScript, C++

Data Analysis and Visualisation: pandas, NumPy, Exploratory Data Analysis (EDA), data preprocessing, feature selection, statistical analysis, Power BI, Matplotlib, Seaborn, Excel

Machine Learning and AI: scikit-learn, supervised learning, predictive modelling, deep learning (CNNs), Natural Language Processing (NLP); learning LLMs and RAG

Databases: MySQL, SQLite, relational database concepts, database management

Tools and Technologies: Git, GitHub, GitHub Actions (CI/CD), Docker, Flask, pytest, Jupyter, Google Colab, Linux

SELECTED TECHNICAL PROJECTS

NIFTY 50 Drawdown Alert System | Python, pandas, SQLite, Docker, pytest Independent project, 2026

- To track stock-market falls without manual checking, built a **Python** and **pandas** pipeline that validates live prices, calculates drawdown from the 52-week high and alerts by Telegram and email at 10–50% falls.
- To prevent duplicate alerts, stored alert state in **SQLite** with a 2% re-arm buffer and wrote 44 **pytest** unit and integration tests, so each threshold alerts only once, even after a restart.
- Deployed the monitor and a Telegram status bot as self-healing **Docker Compose** containers.

Stroke Risk Prediction | Python, scikit-learn BSc project

- To help spot high-risk patients early, carried out **exploratory data analysis (EDA)** and **feature selection** on patient data, then trained a **supervised machine learning** model in **scikit-learn** to predict stroke risk.

Fake News Detection | Python, deep learning, NLP BSc project

- To flag misinformation automatically, applied **NLP** text preprocessing and built a **convolutional neural network (CNN)** that classifies news articles as real or fake.

Secure Vehicle Black Box | Python, pandas, Arduino C/C++, NodeMCU BSc project, 2026

- To give accident investigators trustworthy evidence, built an **IoT** prototype whose **Python** scripts poll motion, GPS and temperature sensors every 5 seconds and log each reading as an **RC6-encrypted** record using **pandas**.

Analytics and Microservice APIs | Python, Flask, SQLite, REST MSc coursework, 2026

- To handle long-running jobs and failing services, implemented **REST APIs** in **Flask**: an asynchronous analytics job API and a three-service microservice system with timeouts and clear 409, 502 and 503 errors.

ADDITIONAL INFORMATION

Professional Skills: Communication, teamwork, problem-solving, organisation

Languages: English (fluent), Tamil (fluent) | **Interests:** Fitness and strength training, trekking