

Keerthirajan Murugesan

Graduate AI Engineer

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Executive Summary

Future-focused AI engineer with Masters in Artificial Intelligence Data Science who turns messy, real-world data into deployable NLP and ML systems, not just academic prototypes. Built an AI-powered clinical text de-identification pipeline using SpaCy NER and a deep-learning crime forecasting model for London, covering everything from data cleaning and feature engineering to evaluation and model monitoring. Combines production-minded engineering with proven leadership as a retail store manager, bringing rare end-to-end ownership: from understanding users and business constraints to shipping reliable, privacy-aware AI solutions.

Skills

Programming: Python (Advanced, OOP, REST APIs), Java, C, SQL, HTML/CSS, PHP

ML/AI: LLMs (fine-tuning, prompt engineering), NLP, Deep Learning (TensorFlow), Model Evaluation, MLOps

Libraries & Tools: spaCy, NLTK, Transformers, scikit-learn, Pandas, NumPy, Matplotlib, Seaborn

Data Engineering: Data Cleaning, EDA, Feature Engineering, ETL, SQL/NoSQL, MySQL, PostgreSQL

Cloud Tools: AWS (EC2, S3), Docker, Git, GitHub, CI/CD, Jupyter, Tableau, Power BI

Personal skills: Problem-Solving, Analytical Thinking, Adaptability, Collaboration, Attention to Detail.

Projects

AI-Powered Clinical Text De-identification

MSc Research Project

- Built a spaCy NER pipeline to automatically remove protected health information from clinical text.
- Performed data cleaning, manual annotation, and iterative model training on real-world healthcare data.

Predictive Analysis of Anti-Social Behaviour in Greater London

- Developed ML/DL models to predict crime hotspots across 32 London boroughs.
- Engineered temporal, demographic, and POI-based features to forecast weekly crime trends.

Full-Stack Web Login System

- Designed a secure authentication system using Python, PHP, MySQL, HTML, and CSS.
- Implemented login/registration workflows with session and database management.

Information Hiding in Images (Steganography Project)

- Designed algorithms to perform reliable message encoding and decoding while minimising perceptual distortion.
- Gained hands-on experience with image processing, binary data handling, and algorithm optimisation.

MyFunValentine – Interactive Web Experience [link](#)

- MyFunValentine is a small, fun full-stack project I built using HTML, CSS, JavaScript, and Flask.
- It's an interactive web app designed to be playful and engaging, and it helped me practice frontend creativity while connecting it to simple backend logic.

Work Experience

Sales Manager

Morrisons Daily – Hull, UK

Jan 2025 – Dec 2025

- Led a small retail team in daily operations, performance oversight, ensuring smooth store functionality.
- Managed stock levels, addressed customer issues, and handled documentation, which streamlined operations.

Shop Assistant

Morrisons Daily – Hull, UK

Jan 2024 – Dec 2024

- Maintained stock rotation and ensured compliance with labelling standards to optimize inventory management.
- Delivered high-quality customer service and assisted with till operations, enhancing customer satisfaction.

Education

University of Hull, UK

Master of science : Artificial Intelligence & Data Science

2024 – 2025

KSR Institute for Engineering and Technology (Anna University), India

Bachelor of Engineering : Computer Science & Engineering (Distinction) CGPA: 8.69 / 10

2019 – 2023

Leadership & Activities

- President, E-CAP Club (KSRIET): Organised technical workshops and coding events.
- Demonstrated leadership through retail team management and staff mentoring.