

Aman Jaiswal

AI/ML Engineer

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PROFESSIONAL PROFILE

Graduate AI/ML Engineer with a Distinction in MSc Artificial Intelligence from Queen Mary University of London, specializing in Natural Language Processing. Skilled in designing and deploying end-to-end machine learning solutions using Python, PyTorch, and Hugging Face Transformers. Portfolio includes a dissertation in legal-tech AI and a range of high-impact NLP applications.

EDUCATION

Queen Mary University of London

Sep 2024 – Sep 2025

MSc in Artificial Intelligence

Score: Distinction.

Key Modules: Machine Learning, Artificial Intelligence, Applied Statistics, Natural Language Processing, Neural Networks and Deep Learning.

CHRIST (Deemed to be University)

Aug 2021 – Apr 2024

Bachelor of Computer Applications

PROJECTS

AI-Powered Legal Document Analyzer & Contract Summarizer

- Engineered an AI-powered system to analyze legal documents, designed to extract and categorize over 15 distinct clause types (e.g., termination, liability).
- Designed and implemented a risk assessment model to score and highlight ambiguous language, improving the clarity of legal reviews.
- Optimized AI models for legal-specific text by fine-tuning transformer architectures (Legal-BERT, GPT), targeting a 20% improvement over baseline model performance.
- Constructed the full-stack system using Python and Flask for the backend and React for the UI, leveraging PyTorch and Hugging Face Transformers.

CALMA-AI: Emotional Companion for Mental Health

- Developed a complete, AI-powered offline emotional support system utilizing Python, RoBERTa, Whisper, and LLaMA 3.2.
- Architected a multi-modal interface to detect user emotions from both text and voice, achieving real-time response generation (<1-second latency).
- Implemented key features including a structured mood tracker and visual dashboards, ensuring 100% on-device processing for complete user privacy.

Legal Search Engine with BM25 Ranking

- Developed a full-featured desktop application using Python and Tkinter to search and retrieve documents from the 100k+ document Lex-GLUE benchmark.
- Achieved efficient, relevance-based ranking by implementing the BM25Okapi algorithm, delivering search results in under 500 milliseconds.
- Built a resilient, multithreaded architecture that maintained UI responsiveness and handled schema inconsistencies across 5+ unique document formats.

TECHNICAL SKILLS

- Programming & Databases:** Python, SQL, Java, Dart, C++, MySQL, Firebase.
- AI & Machine Learning:** PyTorch, Hugging Face Transformers, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, NLTK, XGBoost, LSTMs.
- Developer Tools & Platforms:** Git, Agile Methodologies, Flask, React, Bootstrap, Flutter.

CERTIFICATIONS & LEADERSHIP

- Certifications:** Large Language Models: Text Classification for NLP using BERT (LinkedIn); Natural Language Processing Fundamentals and Artificial Intelligence and Machine Learning Fundamentals (Infosys Springboard); Using MySQL Database with PHP (Coursera).
- Leadership:** Served as Event Head of INTERFACE 2024, a National Level Undergraduate IT Fest.