

KALPANA JOYCE DOVARI

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PROFESSIONAL SUMMARY

MSc Artificial Intelligence candidate with hands-on experience developing machine learning systems, computer vision pipelines, and NLP applications. Proficient in Python, TensorFlow, PyTorch, and OpenCV, with a strong foundation in deep learning, predictive modelling, and AI-powered automation. Demonstrated ability to design, build, and deploy end-to-end AI solutions — from OCR-based journaling systems to speech recognition pipelines and automated resume screening tools. Seeking a graduate AI/ML Engineer or Data Scientist role in London to apply academic rigour and practical project experience to real-world challenges.

TECHNICAL SKILLS

Programming Languages: Python, SQL, JavaScript, CSS

AI / ML Frameworks: TensorFlow, PyTorch, scikit-learn, Keras, Hugging Face Transformers, Wav2Vec2

Computer Vision: OpenCV, Tesseract OCR, Pillow, image pre-processing pipelines

NLP: NLTK, TextBlob, spaCy, NLP-based information extraction, sentiment analysis

Web & Deployment: Streamlit, React, Next.js, Vercel, Streamlit Cloud

Data & Tools: NumPy, Pandas, SQLite, PyPDF2, Git, GitHub, Jupyter Notebook

KEY PROJECTS

JoBo — OCR Digital Journal | *Python · Streamlit · Tesseract OCR · OpenCV · SQLite · TextBlob · Streamlit Cloud*

- Engineered an end-to-end AI-powered digital journaling application that converts handwritten or printed notes into searchable, structured digital entries using Tesseract OCR.
- Built a multi-stage OpenCV image pre-processing pipeline (grayscale conversion, denoising, adaptive thresholding) to optimise OCR accuracy.
- Integrated NLP-based sentiment analysis (TextBlob/NLTK) to classify mood per journal entry and surface emotional trend visualisations across all entries.
- Deployed to Streamlit Cloud with automated Tesseract installation via packages.txt; implemented full CRUD operations backed by SQLite with keyword search functionality.

AI Resume Screener | *Python · PyPDF2 · NLP · Machine Learning · scikit-learn*

- Developed an automated recruitment tool that parses PDF CVs, extracts candidate skills and contact information using regex and NLP techniques, and scores applicants (0–100%) against defined job requirements.
- Implemented modular, production-grade architecture with cleanly separated data ingestion, text processing, skill matching, and scoring components — directly applicable to enterprise recruitment automation systems.

Speech Recognition Mini-Pipeline | *Python · Wav2Vec2 · Deep Learning · PyTorch*

- Built an end-to-end automatic speech recognition (ASR) pipeline leveraging Facebook's Wav2Vec2 transformer model for audio-to-text transcription.
- Demonstrated applied knowledge of deep learning transformer architectures and audio processing pipelines within a structured, test-driven Python codebase.

Personal AI Assistant | *Python · NLP · Conversational AI*

- Designed a Python-based conversational AI assistant capable of natural language understanding, short-term context retention, and dynamic query handling — demonstrating practical dialogue management and NLP integration skills.

EDUCATION

MSc Artificial Intelligence | Northumbria University, London, United Kingdom | 2025 – Present

Relevant modules: Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, Predictive Maintenance, AI Ethics

BTech Computer Science Engineering (AI) | Parul University, Gujarat, India | 2020 – 2024

ADDITIONAL INFORMATION

Portfolio: my-portfolio-taupe-kappa-13.vercel.app

GitHub: github.com/kalpanajoycedovari — 8 public repositories spanning AI, ML, NLP, and Computer Vision

Interests: AI ethics, human-computer interaction, generative AI, predictive maintenance systems