

KAUSHIK DAS

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Experienced AI Developer with over 4 years of work experience, holding a postgraduate degree in Artificial Intelligence. Specialized in Machine Learning, Deep Learning, Generative AI, Natural Language Generation(NLG), LangChain, RAG Pipelines and Large Language Models(LLMs), proficient in developing and deploying Object Detection Models. Seeking to further advance my career in a professional environment where I can contribute to cutting-edge projects with a focus on AI-driven solutions.

WORK EXPERIENCE

Machine Learning Engineer | Freelance | July 2024 – Present

- Working with a company on a project involving object detection from their project documentation and information extraction using LLM and RAG pipeline, which enhanced efficiency by over 30% in cost quotation processes for a client using.
- This project significantly reduced turnaround time for completing documentation tasks by approximately 40%.

Software Engineer | Kairos Consulting | July 2019 – December 2022

- Contributed to an R&D project for a healthcare client focused on real-time image processing. Utilizing OpenCV and Scikit-Image for Noise reduction, contrast enhancement, and feature extraction.
- Developed and integrated CNNs with TensorFlow and Keras to pattern which improved anomaly detection accuracy in medical images by 15%.. Optimized processing algorithms (FFT, PCA) using NumPy and SciPy.
- Built and maintained an end-to-end web application for an e-commerce client using MERN stack.
- Designed a responsive UI with React.js and supplemented RESTful APIs for authentication, product, and order management.
- Analyzed sales data and enforced Random Forest model, which boosted customer demand led to a 12.8% increase in sales.
- Utilized AWS EC2 for scalable hosting, deployed applications with Docker for consistent environments, managed AWS RDS for secure database, rendered S3 and CloudFront for efficient asset storage and integrated CI/CD pipelines.

Intern | Core JAVA with Android | RCPL(HP) | January 2018 – March 2018

EDUCATION

Master of Science in Artificial Intelligence | University of Aberdeen, UK | January 2023 - June 2024

- Focused on generative AI, machine learning, data mining, deep learning, and software agents, gaining practical skills while working with models like Random Forest, LSTM, GANs and Transformer networks.
- Worked on team projects to design and applied deep learning models for image recognition and lateral language processing. Acquired practical skills and deep theoretical knowledge through coursework and prepared to tackle real-world challenges effectively.

Bachelor of Technology in Electronics and Communications | IEM, KOLKATA ,INDIA | 2015 - 2019

CERTIFICATIONS

- [AWS Certified Cloud Practitioner](#) (AWS Training and Certification)
- [Google Agile Project Management Certification](#) (Coursera)
- [Software Engineer](#) (HackerRank)
- [IBM Machine Learning with Python](#) (Coursera)

PROJECTS

Computer Vision Based Automated Taxi Stand ([GitHub](#))

- Developed a computer vision-based taxi stand system using YOLO and Roboflow's supervision model to detect the exact number of people standing in a queue, with a heatmap indicating queue density.
- Implemented a data trigger to send updates every 10 minutes, allowing the company to redirect cab traffic to the most crowded areas.

LLM and LangChain Based ATS System` ([GitHub](#))

- Created an automated recruiting system by vectorizing submitted resumes with LangChain and LLMs, saving the extracted information as JSON in a database.
- Shortlisted candidates based on job descriptions using LLM, focusing on the relevance of work experience, projects, and education rather than just keywords.

HACKATHONS

Mistral AI Hack UK London 2024 ([Devpost](#))

- As a finalist at the Mistral AI Hackathon co-organized by, Brave, Nebius, Cerebral Valley, and AWS, crafted a web service utilizing the Pixtral-12B-2409 model with AI chatbot agents to address daily medical needs.
- Fine-tuned the model with NHS data and integrated Hugging Face's Pixtral-12B-Captioner-Relaxed model for enhanced interaction. Executed a session-based chat data storage and used RAG pipeline embeddings for personalized and relevant responses.

Code The City – Community Safety Aberdeen 2024 ([GitHub](#))

- Came out on top in the hackathon by proposing and demonstrating a solution to a major traffic-related problem identified by the city council. Utilized computer vision models to detect footfall after major city events, aiding in traffic management and planning.

SKILLS

Programming and Web Development: Python, Java, C, HTML, CSS, JavaScript, Django, React

Machine Learning, AI & Data Science: TensorFlow, PyTorch, Scikit-learn, Keras, Generative AI, NLG, LLMs, LangChain, Llama, Rag Pipeline

Frameworks and Tools: React, Fast API, Rest API, Flask, Gradio Framework

Database & Cloud Computing: MySQL, Microsoft Access, MongoDB, Docker, AWS