

RAJESH K. JAT

AI RESEARCH ENGINEER

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PROFESSIONAL SUMMARY

Dynamic AI Research Engineer specializing in Generative AI, Machine Learning, Deep Learning, Computer Vision, and NLP. Proven track record in developing and implementing customized AI solutions for data-driven projects.

SKILLS

Python, R, SQL, TensorFlow, PyTorch, OpenCV, LLM, Prompt Engineering, RAG, LangChain, LlamaIndex, CrewAI, FastAPI, Scikit-Learn, Pandas, NumPy, NLTK, Hugging Face, Qiskit, Flask, ReactJS, ExpressJS, MLOps, AWS, Hadoop, Power BI, R Studio, MongoDB, GitHub, Linux

WORK EXPERIENCE

AI Research Engineer

Jul 2023 – Present

WESEE – Naval R&D Lab

New Delhi

- Fine-tuned a large language model on a confidential naval dataset using SFT, DPO, and RLHF. Implemented a RAG pipeline with LangChain to create a secure, ChatGPT-like solution for precise, context-aware responses while ensuring data privacy.
- Developed an end-to-end Satellite Image Analytics web application for maritime surveillance using YOLOv8 with OBB for precise object detection in satellite imagery.
- Developed an advanced Face Recognition Attendance System using FaceNet, automating entry-exit at dockyards and significantly enhancing access control accuracy and operational efficiency.

Artificial Intelligence Intern

Sep 2022 – Jan 2023

Object Automation System Solutions (Pvt) Ltd.

Chennai

- Developed an user-friendly movie recommendation system using collaborative filtering to deliver personalized suggestions to users.
- Administered and maintained a Linux-based virtual private server, overseeing its setup, configuration, security, and ongoing maintenance.

PROJECTS

1. ChatPDF ([GitHub](#))

Developed an AI-powered application that allows users to interact with PDF documents via a chat interface. Utilized Text2Text generation model for real-time question answering, built with Streamlit and LangChain.

2. QnA Generator ([GitHub](#))

Created an application using the Mistral 7B model to automatically generate questions and answers from PDF documents, enhancing document interaction and information retrieval.

EDUCATION

M.Tech in Artificial Intelligence & Data Science

IIIT Kota, MNIT Campus Jaipur, Jul 2023

B.Tech in Computer Science & Engineering

Rajasthan Technical University Kota, June 2021

CERTIFICATIONS

- AWS Fundamentals
- Developing Cloud Native Application

[Coursera](#)

Coursera