RAJESH KUMAR JAT

Full Stack AI Engineer

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PROFESSIONAL SUMMARY

Dedicated AI researcher with a passion for advancing the frontier of artificial intelligence. Specializes in cutting-edge research areas including machine learning, deep learning, natural language processing, and computer vision. Skilled in conducting experiments, analyzing results, and iterating on methodologies to achieve state-of-the-art performance.

WORK EXPERIENCE

WESEE – Indian Navy
July 2023- Present

Full Stack Artificial Intelligence Engineer

- Conducted sentiment analysis by fine-tuning LLAMA2, leveraging its capabilities to extract nuanced sentiment insights from textual data.
- Designed and developed an end-to-end face recognition-based attendance system using FaceNet and PyQt5. This system streamlined AI enabled attendance tracking processes and ensured accuracy and efficiency.
- Spearheaded the implementation of an end-to-end warship detection system from satellite imagery. Utilized YOLO object detection, PyTorch for model training, and React.js for interactive visualization, resulting in enhanced maritime surveillance capabilities.

Object Automation Systems Solution Pvt Ltd
Sep 2022 – Jan 2023

Artificial Intelligence Intern

- Developed an user-friendly movie recommendation system, utilizing collaborative filtering and other relevant techniques to provide personalized recommendations to users.
- Managed the Learning Management System (MOODLE), ensuring smooth operation and user experience for online learning platforms.
- Administered and maintained a Linux-based virtual private server, responsible for its setup, configuration, security, and ongoing maintenance tasks.

EDUCATION

- **M.Tech in Artificial Intelligence & Data Science –** *Indian Institute of Information Technology Kota, MNIT Campus Jaipur,* ***Jul 2023***
- **B.Tech in Computer Science Engineering –** *Vivekananda Institute of Technology Jaipur,* ***Jun 2021***

SKILLS

Programming Languages: Python, R, SQL, C#
Frameworks/Libraries: Pytorch, TensorFlow, SpeechBrain, Whisper, OpenSeaDragon, Qiskit, NLTK, Flask, React, Express, JavaScript, PyQt5, Scikit-Learn, Pandas, Numpy, Matplotlib,
Tools: R Studio, Power BI, Hadoop, QT-Designer, LabelImg2, AWS, GitHub, Jupyter Notebook

PERSONAL PROJECTS

NGO Website Development: ***React.js, Material UI, Express.js***

- Designed and developed a website for an NGO using React.js and Material UI, ensuring a user-friendly and visually appealing interface.
- Implemented various features and functionalities to facilitate online donations, volunteer registration, and information dissemination about the NGO's mission and activities.
- Leveraged Express.js for backend development to optimize the website, enhancing accessibility and user experience.

Face Recognition based Attendance System: ***OpenCV, Facenet, PyQt5***

- Developed and implemented a robust face recognition-based attendance system utilizing OpenCV for image processing, Facenet for face recognition, and PyQt5 for user interface development.

Stock Price Prediction: ***TensorFlow, NumPy, Matplotlib, Scikit-learn***

- Developed a Stock Price Prediction model, focusing on analyzing and forecasting trends in the Tata Beverages dataset.
- Applied Long Short-Term Memory (LSTM) neural networks using TensorFlow, integrating with NumPy for numerical computations, Matplotlib for data visualization, and Scikit-learn for model evaluation.
- Produced actionable insights into beverage sales patterns, enabling informed decision-making and accurate predictions for future sales performance.

Text Sophistication Analyzer: ***RegEx***

- Conceptualized and executed a Text Sophistication Analyzer project, originally aimed at developing a plagiarism checker web application.
- Implemented various functionalities using RegEx, including text file cleaning, calculation of average word length, computation of distinct word ratios, and determination of text similarity.