LOKESH KUMAR SHARMA

Python | AI/ML Engineer | Generative AI | LLM | Computer Vision | NLP

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PROFESSIONAL SUMMARY

Experienced Machine Learning Engineer with 4+ years in designing and implementing machine learning and deep learning models using Python. Skilled in regression, classification, and Generative AI with large language models (LLMs). Proficient in developing use cases, modeling business processes, and creating innovative solutions. Dedicated to staying current with the latest industry developments.

WORK HISTORY

Chetu India - Software Engineer (ML)
Noida
08/2021 - Current

- Developed applications using **Python, Django, Generative AI**, focusing on **large language models** to address various business use cases
- Integrated **OpenAI API** to build chatbots utilizing **Retrieval-Augmented Generation** (**RAG**) techniques, optimizing token usage to reduce costs
- Leveraged open-source **LLM models** for diverse applications, efficiently managing multiple **API** requests through **GPU** parallelism and batch processing
- Independently managed projects from inception to **deployment** on **AWS**, ensuring seamless implementation and scalability

Watermelon HR Services Pvt Ltd.- Data Analyst **(**Executive**)**
Noida
11/2019 - 05/2020

- Validated and ensured the accuracy of warehouse inventory data using advanced data management techniques. Applied statistical analysis and data modeling expertise to track inventory trends and optimize stock levels.
- Utilized data visualization and mining techniques to generate actionable insights from warehouse data. Generated and submitted daily, weekly, and monthly inventory reports, providing comprehensive insights for management.
- Monitored inventory movements and transactions, ensuring adherence to operational standards and minimizing errors. Worked closely with management to identify inventory-related trends and recommend improvements based on data analysis.
- Participated in continuous process improvement initiatives by leveraging inventory data for better decision-making.

Enrich Enterprises Pvt. Ltd. - Typesetter (Data analytics)
Noida
11/2018 - 11/2019

- Delivered data analysis and visualization solutions by importing and processing Excel data using **Python** libraries such as **Pandas** and **NumPy**, enabling better business insights and decision-making.
- Designed and developed interactive data visualizations and dashboards using **Matplotlib**, **Seaborn**, and Plotly, presenting trends, key metrics, and performance indicators in a clear and impactful format.
- Automated data extraction, cleaning, and transformation tasks from Excel files to streamline reporting workflows, reducing manual effort and improving efficiency.
- Delivered comprehensive and accurate reporting on data trends and forecasts by combining data from multiple Excel files, ensuring cohesive insights across various business units.

EDUCATION

06/2016
Chaudhary Charan Singh University
Meerut

Bachelor's Computer Science:

SKILLS

- Python , SQL, OOPs
- NumPy, Pandas, Scikit-learn, Keras, Tensorflow,
- Machine Learning, Deep Learning
- Computer Vision, OpenCV, GANs, Stable Diffusion
- Natural Language Processing, LLM
- Generative AI
- Retrieval-Augmented Generation (RAG)
- LangChain, LangGraph, Agentic AI
- Prompt Engineering
- Django, Django Rest Framework
- Postman, Jupyter Notebook, PyCharm, VS IDE
- PostgreSQL, MySQL
- Google Cloud Platform (GCP), AWS
- Nginx, Gunicorn, EC2, S3 Bucket
- CI/CD Pipeline
- GitHub, JIRA
- Linux, Windows

LANGUAGES
- English
- Hindi

Projects

- **Project: Legal ChatBot**
  Brief: Legal ChatBot using OpenAI and vector database for efficient retrieval and response generation from legal PDFs.
  Technique: OpenAI, ChromaDB, LangChain's document chains, Prompt Engineering.
  Tools: OpenAI, ChromaDB, Django, AWS (EC2), Gunicorn, Nginx.
  Achievements: Deployed a robust Legal ChatBot system capable of accurately answering legal queries based on stored legal documents.

- **Project: AI-Powered Eye Pathology System**
  Brief: AI system for automated eye exams using CNN for analyzing digital eye images and detecting potential health issues.
  Technique: Image Processing, Image Analysis, Computer Vision, Pathological Spot Detection, Matrix-Based Localization.
  Tools: Python, Django, OpenCV, TensorFlow, CNN, AWS (EC2), Gunicorn, Nginx.
  Achievements: Developed an AI model to detect iris and pupil sections, identify spots in defined sections, and predict potential health conditions by correlating spot locations with specific body organs.

- **Project: Multi tenancy AI Chatbot**
  Brief: Chatbot for Packing and moving services which includes 3 modules i.e. local, intrastate and interstate.
  Technique: LLM, Fine tuning, RAG, Chat history integration to AI, Generative AI
  Tools: OpenAI, Google Map, Python, Django Rest Framework, AWS,
  Achievements: Built a **AI Chatbot** for packing and moving service for different modules

- **Project: Automated Cheque and Invoice Extraction**
  Brief: AI system to automated extracting cheque and invoice details from PDFs using OCR techniques.
  Technique: OpenAI, ChromaDB, LangChain's document chains, Prompt Engineering.
  Tools: Django, AWS (EC2), Gunicorn, Nginx.
  Achievements: Efficient extraction of cheque and invoice data from large PDFs using prompt Engineering.

- **Project: Trip Planner Based on Agentic AI(POC)**
  Brief: AI system for generating travel plans based on user preferences.
  Technique: Multiple AI agents handling tasks like city recommendation, accommodation, activities, etc., Prompt Engineering.
  Tools: LangChain, LangGraph, Django, AWS (EC2), Gunicorn, Nginx.
  Achievements: Deployed an AI-based trip planner, Hotal and activity recommendation, providing tailored travel plans efficiently.