

Abhishek Sharma

✉ abhishek11255@yahoo.com ☎ 7023316267 📍 78, Arvind Nagar, Jaipur

Professional Experience

Machine Learning Engineer, Parspec 2023 Apr – present

- **Strategic Leadership:** Spearheaded the development of Parspec's recommendation system, streamlining the construction industry's submittal process.
- **Innovation in ML:** Designed and deployed a scalable FastAPI service on AWS for PDF parsing and data extraction, optimizing data processing for large-scale operations.
- **Advanced NLP:** Trained a BERT model for precise product categorization and mounting type identification from PDFs, resulting in a substantial enhancement of recommendation accuracy.
- **Performance Optimization:** Implemented multiprocessing techniques for parallel data preparation, resolving memory bottlenecks and significantly improving system efficiency.
- **Collaboration and Mentoring:** Conducted interviews for and mentored ML interns, fostering a collaborative team environment and building the next generation of data scientists.
- **User-Centric Solutions:** Launched a highly engaging Streamlit app for real-time attribute extraction and product recommendations, improving user interaction and satisfaction.

Associate Engineer, Innominds 2021 – 2023 Feb

- **Innovative ML Solutions:** Developed and evaluated deep neural networks, LSTM models, Gaussian copula, and GANs for synthetic time-series and tabular data, consistently achieving accuracy rates exceeding 90%.
- **Efficiency Enhancement:** Reduced data preparation time by 50% through the design and implementation of data pipelines, enabling faster and more agile decision-making.
- **Data-Driven Insights:** Conducted sentiment analysis on text data using DistillBERT and presented insights via a custom JavaScript, FastAPI, and SQL-based dashboard.
- **Geospatial Optimization:** Leveraged advanced techniques to optimize supply chain and cluster geospatial data, contributing to more informed decision-making processes.
- **Healthcare Impact:** Produced real-time ECG analysis dashboards using Plotly and Streamlit, empowering medical professionals to swiftly identify anomalies in patient data.
- **Market Analysis:** Analyzed USA real estate data and built predictive models for future sales by extracting and utilizing demographic data obtained through web scraping.
- **Distributed Systems Expertise:** Demonstrated proficiency in Neo4j, RabbitMQ, Celery, and Redis for efficient data processing in distributed systems

Education

M.Tech, Indian Institute of Technology, Hyderabad 2021 Jun

B.Tech, Jaipur Engineer College and Research Center 2018 Jul

Skills

Python • Flask • TensorFlow • PySpark • Databases (SQL, MongoDB) • Cloud Tech (AWS, GCP)

Machine Learning • Data Visualization • Hypothesis testing • Time series analysis

Advanced NLP Models (BERT) • Regression Analysis • Deep Learning • Data Pipelines • LLM

Projects

Rainfall Estimation using Weather Radar

- M.Tech thesis project on Clouds Precipitation Estimation.
- Analyzed urban floods using Deep Learning and sequence modeling techniques.
- Leveraged data from the India Meteorological Department (IMD) Weather Radar and Rain gauge data.

Speech Driven Bot car

- Designed a voice-controlled bot car using Arduino.
- Trained voice recognition models for seamless driving through voice commands.

Covid spread prevention

- Developed a web application and Android app for real-time tracking and contact tracing.
- Integrated Here Map APIs for geofencing and geo-routing.