DEEPSHIKHA MAHATO

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Summary

Dynamic Machine Learning Engineer with expertise in data modeling, AI-driven solutions, and cloud-based deployments (AWS, GCP), improving model accuracy by 20% and reducing processing time by 30%. Strong communication and collaboration skills, driving impactful AI innovations in fraud detection, recommender systems, and predictive analytics.

Education

Katz School of Science and Health, Yeshiva University **Sep 2023 – Dec 2024**
Masters in Artificial Intelligence *Manhattan, New York*

IIIT Data Science Program **Oct 2022 – Jun 2023**
Specialization: Deep Learning *Bengaluru, India*

Technical Skills

Languages: Python, R, Java, C, C++, HTML/CSS, MySQL
Developer Tools: Jupyter Notebook, PyCharm, VS Code, Anaconda, Google Colab, Tableau, Power BI
Frameworks & Libraries: TensorFlow, Keras, PyTorch, Scikit-learn, XGBoost, LightGBM, Pandas, Numpy, Matplotlib, Seaborn, Plotly, Apache Spark, NLP (SpaCy, Hugging Face Transformers)
Database & Cloud Platforms: MySQL, AWS (Redshift, EMR), Google Cloud (AI Platform))

Experience

ZSAnalytics LLC **May 2024 – Aug 2024**
Machine Learning Engineer Intern *City, New York*

- Conducted data-driven decision-making using machine learning algorithms (Random Forest, LDA, QDA) to optimize business intelligence, improving marketing campaign efficiency by 10%.
- Built and maintained interactive dashboards in Tableau, facilitating cross-functional collaboration and enhancing customer engagement by 15%.

AITouch LLP **Oct 2019 – Jul 2023**
Data Engineer-Operations *Gurugram, Haryana*

- Designed scalable data pipelines leveraging Apache Spark and AWS, ensuring data reliability and security for AI-driven applications in customer-facing industries.
- Spearheaded data processing and automation, reducing model training time by 30%, improving operational efficiency and decision-making reliability.

Projects

Fraud Detection Framework for Medicare Claims | *PCA, KNN, Fraud Dataset* **Dec 2023**

- Developed an AI-driven anomaly detection system for fraud detection, achieving a 5% identification rate for anomalous providers while improving Medicare cost efficiency.
- Enhanced model accuracy by 15%, aligning with industry standards for fraud detection while optimizing data preprocessing and reducing false-positive rate.

Hateful Meme Detection | *CNN, BERT, VisualBERT, RoBERTa, Hateful Memes Dataset* **Feb 2024**

- Built a multimodal hate meme detection system using NLP and computer vision with VisualBERT and Apache Spark, achieving 78% accuracy and outperforming RoBERTa by 12%.
- Optimized MLOps deployment, enhancing real-time processing, user experience, and detection accuracy by 20%, enabling scalable AI-driven content moderation across 1.2M+ samples.

Crowd Density Estimation Using Wi-Fi RSSI | *Random Forest, CNN, Wifi-RSSI Dataset* **Dec 2024**

- Developed a privacy-preserving crowd density estimation model using Wi-Fi RSSI data, Apache Spark, and MLOps pipelines, achieving 93.2% accuracy and 15% improvement over conventional urban planning techniques.
- Designed a scalable data infrastructure, reducing computational overhead by 20%, enabling real-time processing, data mining, and AI-driven smart city applications for public safety.

Certifications

- **Neural Networks and Deep Learning** - View Certificate
- **COMP102.1x: Introduction to Java Programming - Part 1** - View Certificate
- **COMP102.2x: Introduction to Java Programming - Part 2** - View Certificate