Shrivatsasingh Rathore

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Summary

Graduate Data Science student with strong experience in machine learning, deep learning, and software development. Skilled in Python, TensorFlow, and modern ML frameworks, with a track record of building predictive models and scalable applications. Proficient in deploying end-to-end solutions, from data pipelines to interactive dashboards, to drive impactful results and innovation.

Education

Arizona State University **Aug 2024 - May 2026**

Master of Science, Data Science, Analytics and Engineering

- **Coursework:** Data Visualization, Data mining, Processing Data at Scale, Statistics for Data Analyst, Information Security and Assurance

Savitribai Phule Pune University (University of Pune) **Sep 2020 - Jun 2024**

Bachelor of Engineering, Computer Engineering

- **GPA:** 8.7/10
- **Coursework:** Software Engineering, Data Structures and Algorithms, Systems Programming and Operating Systems, Object Oriented Programming, Database Systems, Big Data Analytics, Artificial Intelligence, Machine Learning, Deep Learning

Experience

Dr. D. Y. Patil Unitech Society **Jan 2024 - Jun 2024**

Research Assistant

- Designed and implemented a cloud-based database system, enhancing data retrieval speed by 40% and improving research efficiency.
- Developed RESTful APIs to automate data collection and processing, reducing manual workload by 30% and increasing system reliability.
- Built predictive analytics models leveraging machine learning to identify trends in customer data, contributing to a 20% increase in decision-making accuracy.

Bajaj Auto Lmt **Feb 2023 - Mar 2023**

Engineering Intern

- Conducted financial performance analysis to identify key profitability drivers and recommended operational improvements, leading to more informed business strategies
- Developed Power BI dashboards to track business metrics, reducing reporting inefficiencies by 40% and enhancing strategic decision-making.
- Automated data collection and analysis processes to optimize category performance evaluation and reduce manual efforts by 30%.
- Created insightful data visualizations that enhanced decision-making and clearly communicated analytical findings.

Projects

Smart-Based Book Recommendation System | LLM Integration, Sentiment Analysis **May 2025 - Jun 2025**

- Developed an interactive book recommendation system using Gradio, handling over 7,000 book entries and providing recommendations based on semantic similarity to user queries with 78% accuracy.
- Integrated LangChain and OpenAI embeddings to build a vector search database using Chroma, reducing query processing time by 40% compared to traditional keyword-based search methods.
- Implemented zero-shot text classification for categorizing book descriptions.

Augmented Analytics Platform | Retail Sales Insight Dashboard **Apr 2025 - May 2025**

- Built an interactive analytics dashboard that automated analysis of 10,000+ retail transactions, surfacing KPI cards and sales/profit trends for business managers.
- Engineered dynamic filters and real-time charts enabling users to drill down by year and region, reducing manual data slicing time by 80%.
- Automated profiling and narrative generation for 20+ business insights using ydata-profiling and custom NLG templates, boosting non-technical adoption.

CrimeNet | Urban Crime Hotspot Detection with GNNs **Jan 2025 - Mar 2025**

- Designed and implemented a predictive pipeline to classify crime hotspots using 500,000+ Phoenix PD incident records, achieving model accuracy of 84% on validation data.
- Leveraged SHAP for feature importance analysis, delivering clear insights to academic evaluators and supporting practical recommendations for law enforcement resource allocation.

Ride Wise **Jan 2025 - Jul 2025**

- Developed and validated ML models on over 1 million ride records to forecast demand, achieving RB2 scores of 0.92-0.95 and reducing forecast error by 25% compared to baseline
- Applied SHAP for model explainability, identifying top demand drivers and supporting promotion experiments that resulted in improved user engagement in test deployments.

Technical Skills

- **Programming Languages**: Python, C++, SQL, HTML, CSS, JavaScript
- **Tools and Platforms**: TensorFlow, Keras, OpenCV, Mediapipe, NLTK, NumPy, Pandas, Scikit-Learn, Matplotlib, Seaborn, Gradio, Flet, VS Code, Git, GitHub, XAMPP, DALL-E 2 API, REST APIs, Firecrawl, React, PowerBI, Tableau, Colab, Jupyter Notebook, Snowflake, MongoDB, Sreamlit
- **Other**: Natural Language Processing, Computer Vision, Data Visualization, Data Pipelines, Data Analytics, Web Scraping, HTTP Requests, Browser DevTools, SEO, Google Workspace, Microsoft Office, Communication Skills, Collaborative Skills, Prompt Engineering, LLM-Based Development, SHAP, Fluent in English, Eager to Learn