SHIVANI PANDEY

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PROFESSIONAL SUMMARY

Dynamic Data Scientist with 5+ years of experience spanning in FinTech, telecommunications, and IT industries, with a proven track record in backend development, retrieval-augmented generation (RAG) systems, and machine learning. Proficient in Python programming, large language models (LLMs), NLP, and advanced data analysis. Expertise in data mining, cleaning, and preprocessing to extract actionable insights and ensure data quality. Recognized for analytical problem-solving and debugging complex systems.

EDUCATION

UNIVERSITY OF KENTUCKY   **Lexington, KY**
Master of Science in Finance (STEM Program) with a focus on Analytics   **Dec 2024**
<u>Relevant Coursework</u>: Financial Mathematics, Investment strategies, Data Mining and Predictive Analytics, and Data visualization

COLLEGE OF ENGINEERING PUNE(COEP) TECHNOLOGICAL UNIVERSITY   **Pune, India**
B. Tech in Electrical Engineering   **May 2018**

TECHNICAL SKILLS

Programming Languages: Java, Python (NumPy, Pandas, Scikit-learn, TensorFlow), R Programming
AI & Machine Learning: NLP, LLMs, RAG architecture, search optimization techniques, predictive modelling
Data Visualization Tools: SQL, Tableau, Power BI; **Web Development and Trading Platforms:** HTML, CSS, Bloomberg terminal, REDI
Tools & Technologies: Unix commands, PowerShell, Visual Studio, Android Studio, MATLAB, MS Office Pro plus, Jira, GitHub, MS Excel

PROFESSIONAL EXPERIENCE

MOTOROLA SOLUTIONS INC   **May 2024- Dec 2024**
Data Scientist

- **Hyper-Personalized Chat Assistant-** Designed and spearheaded the development of an AI-driven chat assistant by integrating natural language processing (NLP) and machine learning models to provide highly personalized user experiences.
- Integrated **Large Language Models (LLMs)** and **Retrieval-Augmented Generation (RAG)** architecture to enhance the chatbot's ability to provide contextual, real-time, and accurate responses based on a vast knowledge repository.
- Prepared datasets for AWS data pipeline ingestion by extracting large files, converting them to JSON format, and syncing data to S3 buckets, ensuring seamless data flow and compliance with ingestion requirements.
- **SQL Queries and Tableau Dashboard** - Developed and implemented a data visualization project, extracting report information from a database using SQL queries, creating interactive dashboards in Tableau, and presenting findings and insights to stakeholders, demonstrating proficiency in data analysis, querying, and visualization.

UNIVERSITY OF KENTUCKY   **Jan 2024 – Dec 2024**
Business Analytics Lab Assistant

- Provide hands-on assistance to students learning **R**, **Tableau**, Advanced **Excel**, Pivot Tables and **Python** for business analytics tasks by explaining software functions, demonstrating workflows, and troubleshooting technical issues.

LONDON STOCK EXCHANGE GROUP   **Sep 2021 – Feb 2023**
Trading Onboarding Specialist

- Troubleshot and resolved complex order execution issues involving FX, Equities, and Derivatives; improved overall trade success rate; implemented Order Execution Management (EMS) workflows for improved efficiency.
- Developed automated onboarding processes using Python, PowerShell, and SQL, reducing client setup time by 20%.
- Managed ALGO/DMA certifications and onboarded institutional clients, ensuring seamless integration with the trading platform.

FINIQ CONSULTING PVT   **Jul 2018 – Aug 2021**
Software Developer

- Developed and maintained high-performance **Java** applications and in-house cloud trading platform for processing complex financial data and integrating with FIX engines, streamlining structured product trading workflows.
- Conducted comprehensive Rule of Engagement (ROE) analysis using Python and **Tableau** to identify and visualize key performance metrics for client onboarding processes, resulting in a 40% increase in onboarded clients.
- Reduced database update time for FIX messages by **85%** through optimized stored procedures and non-clustered indexes in **SQL**.

ACADEMIC PROJECTS

Churn Prediction Online Learning   **Fall 2024**

- Developed a predictive churn model for an online learning platform by leveraging both structured and unstructured data.

Credit Card Fraud Prediction with Machine Learning (Python, Numpy, Pandas, scikit-learn)   **Fall 2023**

- Developed a machine learning model using various machine learning algorithms (Random Forest, Logistic Regression, etc) with scikit-learn to detect fraudulent credit card transactions in real-time, minimizing financial losses for a financial institution.

Investment Portfolio Risk Analysis and Optimization   **Fall 2019**

- Developed an optimization tool using historical data, **risk-adjusted return metrics**, and **Monte Carlo simulations** to support balanced portfolio allocation.

CERTIFICATION

Bloomberg Market Concepts, Data Scientist's toolbox, Fundamentals of Quantitative Modelling, LLM Foundations

AWARDS AND EXTRACURRICULAR ACTIVITIES

Qualified for nationals in chess tournament from Oman. Awarded gold coin twice for securing highest marks in 12th board examination.