BHARATH GIRIRAJAN

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SUMMARY:

Master's student in Business Analytics and Project Management with 3+ years of experience, including developing an LLM-based chatbot that improved prediction accuracy by 15%. Skilled in deploying ML models on AWS and working with large datasets of 100,000+ data points. Certified in Power BI, Azure, and Oracle, with a focus on applying advanced analytics to drive business outcomes.

EDUCATION:

University of Connecticut, School of Business-Hartford, CT **Aug 2023 – Dec 2024**
Master of Science in Business Analytics and Project Management
Anna University -Chennai, India **Sep 2017 – Jun 2021**
Bachelor of Engineering, Electronics and Communication Engineering

TECHNICAL SKILLS:

Programming Languages: Python, Java, MS-Excel.
Databases: PostgreSQL, Oracle SQL developer.
Cloud and Big Data Platforms: Azure (Blob Storage, Data Factory, Data Lake), AWS (S3,RDS, EC2).
Techniques: Machine Learning, Exploratory Data Analysis, Neural Networks, NLP, WebScraping,Hypothesis, Time Series
Large Language Models & APIs: OpenAI GPT APIs (GPT-3, GPT-4), Hugging Face Transformers, LangChain.
Business Intelligence Tools: Power BI, Tableau, Visio, Matplotlib, seaborn.
Certifications : Microsoft Certified Power BI Analyst (PL-300), Oracle Certified Associate (1Z0-808), Microsoft Azure Fundamentals (AZ-900), Azure AI Fundamentals (AI-900) and Microsoft Azure Data Fundamentals (DP-900).
Coursework: Generative AI, Advanced Data Science, Visual Analytics,WebAnalytics.

PROFESSIONAL EXPERIENCE:

Database Administrator Intern **Jan 2024 - May 2024**
Allied Health Science Department, University of Connecticut, Storrs

- Cleaned and standardized over 10,000 student records from multiple sources using Python, improving data accuracy by 25% and established an automated data flow system to streamline data integration.
- Designed and deployed a Power BI dashboard that provided real-time insights into student performance, leading to a 15% increase in identifying at-risk students and improving support intervention strategies.
- Built and documented a comprehensive data dictionary and back-end architecture for long-term department use, streamlined manual data processing time by 40% and enhancing data-driven decision-making across departments.

Cognizant Technology Solutions, Chennai (Client: Incomm Payments, Atlanta,USA) **Oct 2021-Jul 2023**
Programmer Analyst

- Collaborated with cross-functional teams to analyze user requirements, design database schemas, and develop SQL queries, resulting in a 20% increase in payment gateway efficiency.
- Functioned within a 10-member project in a fast-paced Agile environment, orchestrating seamless application deployments across all release environments.
- Pioneered the design and implementation of top-tier REST- based API solutions in Java, powering applications such as SCAN Reload (barcode generation for POS terminals) and Remote Deposit Capture.
- Enhanced security by mitigating URI-based threats through the implementation of regex expressions across multiple applications, achieving a 100% reduction in security vulnerabilities.

Netzwerk Academy, Bangalore. **Aug 2020 – Mar 2020**
Python Instructor, Intern

- Taught advanced Python concepts to 20+ students, resulting in a 95% improvement in understanding and application of Pandas, Matplotlib/Seaborn, and statistical analysis.

ACADEMIC PROJECTS:

Cryptocurrency Chatbot Development (Tools: Python, Hugging Face Transformers, LangChain, Docker, Streamlit)

- Engineered an LLM-based chatbot to analyze **100,000+ minute-by-minute cryptocurrency data points** for real-time market signaling and predictions. Enhanced models that improved market prediction accuracy by **15%** over baseline.
- Launched on AWS using Docker, with a Streamlit interface for user interaction. Leveraged LangChain and Hugging Face Transformers for language understanding and real-time API integration.Implemented **Docker** for containerization and oversaw **500+ successful API calls** per day using **LangChain** and **Hugging Face Transformers**.

Insurance Premium Prediction MLOps Project (Tools:Git, MLflow,AWS EC2, Docker)

- Constructed a machine learning pipeline to automate insurance premium prediction using models like LinearRidge, XGBoost, and CatBoost, achieving an R^2 score of 0.92.
- Integrated Docker for containerization on AWS EC2, ensuring smooth version control and deployment of the model; this approach decreased server downtime by 50%, ensuring consistent service availability.

Real-Time Human Movement Detection Using Raspberry PI (Research Study)

- Developed real-time systems with 95% face recognition accuracy and person counting using Raspberry Pi. Pioneered human movement detection research was published in the "Turkish Online Journal of Qualitative Enquiry.".
- Implemented cloud-based image storage and email notifications and leveraged insights from notable research references in the development of both projects, demonstrating strong technical proficiency.
- Led a 5-member team in achieving exceptional results, surpassing a 90%accuracy rate in movement detection; demonstrated adaptability, ingenuity, and the ability to foster effective teamwork for impactful outcomes.