**ROOPINI MOHANCHANDER**

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**PROFESSIONAL SUMMARY:**

* Highly accomplished Data scientist and Machine Learning Engineer with Around 8 years of experience in applying Data Mining, Machine Learning with big datasets of structured and unstructured data, and Deep Learning techniques to business problems across verticals.
* Skilled in Python, R, and SQL programming with relevant ML libraries like NumPy, Pandas, SciPy, Matplotlib, Seaborn, TensorFlow, and Scikit-Learn.
* Adept at performing EDA to find patterns in business data and communicate findings to the business using visualization tools such as Matplotlib, Seaborn, ggplot2, and Plotly.
* Provided infrastructure as a service for internal machine learning systems to predict enterprise Azure customer cloud storage, virtual machines usage, SQL server cloud failures, Blob Storage, relational and non - relational database failures.
* Experience in development on various IDEs like Visual Studio Code, Jupyter Notebook, PyCharm, working on all phases of SDLC like Requirement Analysis, Implementation, and Maintenance using Agile methodologies and Scrum calls.
* Hands-on experience in productizing statistical methods (regression, time series, hypothesis testing), machine learning algorithms, predictive models, and deep learning architectures.
* Adept knowledge of the entire Data Science process life cycle including Data Acquisition, Data Preparation, Data Manipulation, Validation, and Data Visualization.
* Eagerly seeking a challenging role that offers the opportunity to apply my extensive knowledge and leadership skills to drive innovation, optimize decision-making processes, and make a substantial contribution to the success of a forward- thinking organization.
* With a track record of leading and mentoring teams of up to 7 members, I am committed to continuous learning and staying at the forefront of the ever evolving ﬁeld of data science.

**TECHNICAL SKILLS**:

**Languages:** Python, R, C, SQL, ML, NLP

**ML Libraries:** Scikit-learn, Pandas, NumPy, TensorFlow, SciPy

**Databases:** PostgreSQL, SQL-Server, MySQL, MongoDB

**Data Visualization:** Tableau, Power BI, Matplotlib, ggplot2, plotly, seaborn, Tensor board, Alteryx.

**Software Development:** JIRA, Confluence, CI/CD Jenkins, Git, Docker, Kibana

**Cloud Computing**: Azure, GCP

**Operating System**: Windows, Linux, Unix, Macintosh, Red Hat, Ubuntu

**Data Modelling:** Statistical Inference, Predictive Modelling, Stochastic Modelling

**EDUCATION & CERTIFICATIONS:**

* Postgraduate in Data Science, Praxis Business School, Bengaluru, India, 2021.
* Master of Business Administration in IT and Marketing, Jerusalem College of Engineering, Chennai, India, 2014
* Bachelor of Computer Application, Justice Basheer Ahamed Syed college for women, Chennai, India, 2012.
* Google Cloud Certiﬁed - Professional Machine Learning Engineer.
* Coursera Certiﬁed - Build and Deploy AI messenger Chatbot using IBM Watson.

**PROFESSIONAL EXPERIENCE:**

**Verizon, Tampa, FL/Remote** *Sr. Data Scientist/Data Analyst*, **Sep 2022 – Till date**

**Project description**: Demand Forecasting and Line Planning Enhancement, Collaborated with the client to enhance their demand forecasting and line planning processes, focusing on two levels of their existing line plan. Leveraged classical time series forecasting techniques and advanced regression methods to optimize predictions.

* Data Pre-processing: Conducted domain-speciﬁc data pre-processing on the line plan data, ensuring data quality and relevance for accurate forecasting.
* Successfully produced the entire codebase along with a robust back-testing framework. This framework is scheduled to trigger every 4 seasons, recommending modeling updates and ensuring the accuracy of forecasts.
* Module Delivery: Delivered two comprehensive modules for the client's line plan categories, addressing speciﬁc forecasting needs and improving planning accuracy.
* Created Jupyter notebooks that perform end-to-end tasks, including data pre-processing, model building, and back-testing/evaluation. These notebooks streamline the forecasting process and enhance transparency.
* Used various NLP methods for text mining, information extraction, topic modelling, and parsing, for developing, deploying, and maintaining production NLP models with scalability in mind.
* Developed an end-to-end, modularized machine learning (ML) application using pre-trained ControlNet (Controllable Stable Diffusion) that enables users to generate a redesigned room from an image and text prompt.
* Optimized SQL queries to improve the performance of data collection.
* Made Power BI reports more interact and activate by using storytelling features such as bookmarks, selection panes, drill through filters.
* Used python scripting and python languages and statistical methods like A/B testing and hypothesis Testing and R language to evaluate data and communicate the results.
* Acted as the primary client liaison for requirements gathering, documentation, Jira updates, and daily scrum calls. Ensured alignment with the client's expectations and needs throughout the project.

**Environmen**t: Python, R, Snowﬂake, Kubeﬂow, GCP's vertex AI, Power BI, Jira and Conﬂuence

**Nike, Portland, OR/Remote**  *Data Scientist/Data Analyst*, **Feb 2022 – Sep 2022**

**Project description:** Client Liaison: Acted as a trusted client liaison, ensuring seamless communication and understanding of requirements.

* Power BI Dashboard Development: Orchestrated the development and implementation of an interactive Power BI dashboard for a telecom company.
* Data Analysis and Visualization: Analyzed and visualized real-time energy performance data, extracting valuable insights across various factors.
* Impactful Reporting: Designed and delivered 8 impactful Power BI reports, revealing crucial energy performance trends.
* Created time series analysis of Azure system failures and implement predictive solutions.
* SQL server migration to Azure cloud databases for data warehousing for the goal of using Azure Machine Learning and MS R server predictive analytics in the cloud
* Customization and Interactivity: Implemented dynamic slicers and ﬁlters, empowering users to customize their dashboard experience.
* Training and Engagement: Conducted comprehensive training sessions, maximizing stakeholder and end-user engagement.
* Used Python programming for data processing, transformation and machine learning modules.
* Project Coordination: Spearheaded project documentation, DevOps updates, and facilitated daily standup calls for seamless coordination.
* Implemented Azure DevOps for Continuous Integration (CI) and Continuous Deployment (CD).
* Real-time Decision-Making: The Power BI dashboard revolutionized data access, enabling informed decision-making in real-time.
* Leadership and Mentoring: Led and mentored a team of 7 professionals, driving their success in delivering streamlined projects.
* Strategic Insights: Identiﬁed top-performing energy plans and fueled effective marketing campaign strategies. Led and mentored a team of 7 Data-science professionals, driving their success in delivering streamlined projects.

**Environment**: Python, Snowﬂake, Kubeﬂow, GCP's vertex AI, Jira and Conﬂuence

**Wendys, Dublin, OH/India**  *Data Scientist/Data Analyst,* **Jul 2021 – Feb 2022**

**Project description**: Proof of Concepts (POCs) and Technical Achievements

* GCP Looker: Conducted a successful Proof of Concept (POC) using GCP Looker, where I created insightful reports using Look ML within the GCP Looker sandbox environment. Presented the reports to senior management, contributing to data-driven decision- making.
* GCP Recommendation AI: Developed a data-driven solution from scratch using Google Cloud's Recommendation AI, leveraging automated products. Generated personalized recommendations to enhance user experiences and drive revenue growth.
* Dialogﬂow CX: Implemented a Dialogﬂow CX agent, deﬁning intents, entities, and training phrases to optimize integration, conversation design, user experience (UX), and performance metrics. Demonstrated expertise in natural language processing (NLP) and conversational AI.
* Worked on Power BI reports using multiple types of visualizations including line charts, doughnut charts, tables, matrix, KPI, scatter plots, box plots, etc.
* Created and administrated workspaces for each project on Power BI service and published the reports from Power BI Desktop to Power BI Services workspace.
* Wrote SQL queries to identify and validate data inconsistencies in data warehouse against source system.
* Worked on complex SQL Queries, PL/SQL procedures and convert them to ETL tasks.
* Created data stories and visualizations using Tableau and Power BI.
* Hackathon Achievement: Actively participated in a hackathon, collaborating with a team to automate end-to-end data science processes, from exploratory data analysis (EDA) to data visualization. This effort showcased innovation and problem-solving skills.
* Developed SQL Queries and performed tuning by creating/modifying indexes and changing query structures to replace sub-query involved functions; used ad hoc workloads.
* Involved in Database design, creating tables and defining relationship between tables using SQL.

**Environment**: Python, Snowﬂake, Kubeﬂow, GCP's vertex AI, Jira and Conﬂuence

**AGS Health, Chennai, India**  *Data Scientist*, **Apr 2015 – Apr 2020**

**Project description**: Employees Proﬁling: Spearheaded the strategic initiative of Employees Proﬁling by collecting, analyzing, and interpreting raw data from diverse departments utilizing SQL Server Management Studio (SSMS).

* Collaborated effectively with cross- functional teams in Operations and Technology to gain a comprehensive understanding of the key metrics essential for performance evaluation.
* Formulated and tested hypotheses conducted rigorous Exploratory Data Analysis (EDA) and employed advanced techniques such as Hierarchical Clustering to derive actionable insights from complex data. Played a pivotal role in providing valuable insights that supported data-driven decision-making.
* Dashboard Creation: Designed and developed visually impactful dashboards using Excel and Tableau to facilitate data reporting.
* Leveraged pivot tables and VLOOKUP functions to extract, interpret, and analyze data effectively, identifying key performance metrics.
* Transformed raw data into meaningful, actionable information that was crucial for monitoring and optimizing various aspects of business operations.
* Used Tableau, Python libraries (Matplotlib, Seaborn, Plotly) for data visualization.
* Process Excellence: Actively participated in a Six Sigma project focused on reducing waiting times for applicants, demonstrating a commitment to process improvement and efficiency.
* Contributed as a vital member of the Process Excellence Auditors' team, conducting monthly audits to ensure adherence to quality standards and operational excellence.

**Environment**: Python, ML Lib, Regression, SQL Server, ETL, Tableau, NumPy, Pandas, Matplotlib, Power BI, Scikit-Learn.

**Sutherland Global Services, India**  *HR Analyst*, **Jun 2014 – Apr 2015**

* Business process analysis of the existing hiring process to meet the current business requirement of a comprehensive recruitment system.
* Solution design of the end-to-end process flow from resume parsing to employee creation
* Configured the look and feel of the employee joining process pages.
* Used SQL to pull up recruitment data from the database for analysis.
* Provided support for migrating raw data, maintained in excel sheets, into SQL.
* Developed test plans and test scripts for unit, integration and user acceptance testing.

**Environment**: SQL, MS Office Suite