Sabarinath (Sab) MS

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# Objective

Knowledgeable Data Scientist with experience delivering in fast-paced, agile environments. Plans and prioritizes proactively to achieve project objectives within deadlines. Collaborative team player with excellent problem-solving logic for increased progress towards improvement goals.

# Education

## MS in Data Science and AI | University of Liverpool September 2021 - September 2022

**Skills Learnt:** Statistics, Machine Learning, Data mining and visualization, Reinforcement Learning, Applied AI, Databases, Research methods in Computer Science

# Experience

## Data Scientist | UST January 2024 – present

* Led the development of a project initiative proposal analysis system, leveraging retrieval augmented generation to extract insights and address user queries within organizational project documents, applying skills in chunking, embedding, and natural language processing for comprehensive analysis and decision-making support.
* Implemented a retrieval augmented generation system to analyze resumes and deliver personalized responses to user queries, utilizing advanced techniques such as chunking and embedding to extract and process relevant information effectively.

**Skills Learnt:** Chunking, Embedding, Vector Database, NLP, Retrieval augmented generation.

## Machine Learning Engineer | Omdena December 2022 – April 2023

* Developed time-series predictive system to mitigate flood risks in Belgrade by leveraging historical weather and hydrological data, resulting in 30% reduction in flood-related damages and enhanced disaster preparedness.
* Created comprehensive maintenance procedures for developed models, ensuring their long-term reliability and performance stability.

**Skills Learnt:** Time series Analysis, Forecasting, Predictive modelling, Risk Assessment, Machine Learning, Project Management

## Data Scientist | UST July 2018 – August 2021

* Developed cutting-edge disease prediction system utilizing AWS tools generating over 60% cost savings for business.
* Developed and deployed chatbots using AWS services and Google Dialogflow, resulting in 30% improvement in precision and accuracy of user intent recognition.
* Conducted thorough data analysis and A/B testing to optimize chatbot performance, resulting in 15% higher conversion rate for customer inquiries to successful outcomes.
* Communicated highly technical concepts to audiences with varying levels of understanding.
* Collaborated with internal stakeholders, identifying, and gathering analytical requirements for customer, product, and project needs.
* Uncovered valuable insights, trends, and patterns from vast and complex datasets, utilizing cutting-edge tools and techniques, resulting in data-driven recommendations that led to 20% increase in operational efficiency.
* Verified and resolved bug reports and issues, writing clean, clear and well-tested code for various projects leading to 30% improvement in efficiency of applications.
* Collaborated with teams for data management process leveraging SQL queries resulting in 80% reduction in workload for team.

**Skills Learnt:** Data Analysis, A/B Testing, Communication, Stakeholder Collaboration, Data-driven Recommendations, Programming and Software Development, Insights and Trend Identification, Operational Efficiency

# Projects

* Implemented a predictive model using machine learning algorithms such as Sentiment Analysis and utilized tools like Python, Scikit-Learn and TensorFlow to understand the ticket buying behavior of the British Airways customers.
* Independently conducted a personal credit risk analysis project, applying advanced analytical techniques to assess creditworthiness and identify potential risks in a self-directed learning initiative.
* Conducted a comprehensive performance review of an online retail store using data analysis techniques and tools like PowerBI, Excel and SQL. Provided insights for improving business operations and marketing strategies, evaluating current performance, and suggesting metrics for expansion.
* Created a football player rating system using data analytics and machine learning techniques, such as regression analysis, to analyze and predict player performance, helping football clubs and academies in their team building process.
* Utilized Convolutional Neural Networks (CNNs) like VGGNet and ResNet in TensorFlow to detect COVID-19 or pneumonia from chest X-ray images of patients, facilitating early diagnosis.

**Skills Learnt:** Machine Learning Algorithms, Self-directed Learning, Credit Risk Analysis, Customer Segmentation, NLP, Deep Learning, Neural Networks

# Technical Skills

* Python (Scikit-learn, Pandas, Numpy, Matplotlib, PyTorch, TensorFlow, Keras, Streamlit), SQL, AWS, Java, HTML, CSS, JavaScript
* AWS Tools: Sage Maker, Pipelines, Step Functions, Glue, Athena, EC2, ECS, S3, Lambda, API Gateway, Data Wrangler
* Natural Language Processing: Text Blob, Word Cloud, Text Classification, Sentiment Analysis, Topic Modelling, Clustering, RAG, Chroma, Langchain, Llama-index, Huggingface
* Methods: XGBoost, Random Forests, Decision Trees, Clustering, Optimization, Statistical analysis, A/B testing, Time Series, Deep Learning, Reinforcement Learning
* Tools: Git, GitHub, Bitbucket, Linux, Jira, Postman, Docker, Jenkins, Bamboo, Oracle SQL Developer
* Data Visualization: Streamlit, Tableau, Power BI, Matplotlib, Seaborn
* Machine Learning, Generative AI, Cloud Computing, Data Analysis, Data Visualization, Product Development, Analytical Skills, Problem Solving, Planning, Data Modelling, Statistics, Research, Team management Skills, Communication Skills, Written Communication

# Interests

Football, Gaming, Travelling, Solving Puzzles, Music and Movie Enthusiast

# Personal Details

Date of Birth: 05/08/1993

Nationality: Indian

Business Languages Known: English

Gender: Male