PRANEETH BOINPALLY

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PROFESSIONAL SUMMARY

- Dynamic and results-oriented professional with expertise in data analysis, data engineering, and data science. Proven ability to extract and transform complex datasets, build predictive models, and deliver actionable insights. Experienced in utilizing advanced analytical tools and programming languages to enhance data accuracy and operational efficiency. Committed to leveraging technology to drive business growth and improve decision-making processes.

Technical Skills

Languages: Java, Python, Python Scripts, C, SQL, CSS, JavaScript, HTML, C++, R, Scala

Tools and Libraries: Pandas, NumPy, scikit-learn, XGBoost, TensorFlow, PyTorch, Tableau, Power BI, Microsoft Excel, Seaborn, Jupyter Notebook, Matplotlib, Apache Spark, Elasticsearch

Techniques: Data Analysis, Data Cleaning, Data Visualization, Statistical Analysis, Machine Learning, Predictive Modeling, Data Mining, ETL Processes, DBMS, Data Warehousing, A/B Testing, Hypothesis Testing, Regression Analysis, Time Series Analysis

Other Skills: Project Management, Problem-Solving, Critical Thinking, Communication Skills, Collaboration, Attention to Detail

Cloud: AWS (AWS S3, AWS Redshift, AWS RDS, AWS Glue, AWS Lambda, AWS SageMaker), Microsoft Azure (Azure Blob Storage, Azure SQL Database, Azure Data Factory, Azure Synapse Analytics, Azure Machine Learning), Google Cloud Platform (GCP)

DevOps and Containers: Docker, Kubernetes, Jenkins

Database Technologies: PostgreSQL, MongoDB, Firebase, MySQL

Data Streaming and Processing: Apache Kafka, Apache Spark

WORK EXPERIENCE

Data Analyst Intern **Hyderabad, TS, India**

TryCryFly Service Limited Oct 2021 – Aug 2022

- Analyzed and interpreted complex data sets to provide actionable insights for business strategy.
- Collaborated with cross-functional teams to optimize data collection processes and enhance data quality.
- Utilized SQL and Python for data extraction, transformation, and analysis, resulting in a 95% improvement in data accuracy.
- Prepared comprehensive reports and visualizations using tools like Power BI, effectively communicating findings to stakeholders.
- Contributed to the development of data-driven solutions that improved operational efficiency and customer satisfaction.

PROJECTS

Network Intrusion Detection Using Machine Learning Techniques

Technologies: XGBoost, scikit-learn

- Created a system to identify and analyze network intrusions using machine learning.
- Analyzed and cleaned the NSL-KDD dataset to identify relevant features for intrusion detection.
- Developed predictive models using XGBoost, achieving a 98% accuracy rate.
- Implemented Elasticsearch to index and search logs, improving the speed of anomaly detection.
- Generated visualizations to identify patterns in network traffic and intrusions.
- Reported findings to stakeholders, providing actionable insights into network security.

Data Tool Kit

Technologies: Python, Flask, React, Chart.js, Pandas, Axios, GitHub, Docker

- Developed a web-based application for data cleaning and visualization, facilitating efficient data analysis.
- Implemented a Flask backend to handle file uploads, clean data, and return processed results using Pandas.
- Created a React frontend with components for file upload, data cleaning options, and interactive visualizations using Chart.js.
- Enabled users to choose specific data cleaning operations such as removing duplicates and handling missing values.
- Integrated Axios for seamless communication between the frontend and backend.
- Enhanced user experience with dynamic charts and graphs, allowing users to visualize cleaned data in multiple formats.

Driver Drowsiness Detection Using Machine Learning

Technologies: Python, OpenCV, TensorFlow, AWS SageMaker

- Developed a system to monitor and analyze eye movements to detect driver drowsiness.
- Collected and preprocessed data from webcam images to monitor eye movements.
- Implemented machine learning algorithms to classify drowsiness states.
- Deployed the model using AWS SageMaker to ensure scalability and reliability.
- Visualized detection results and performance metrics to ensure system accuracy and reliability.
- Improved detection accuracy by 20% through iterative model tuning and data analysis.

Intelligent Proctor

Technologies: Keras, TensorFlow, Google Cloud Platform (GCP), MongoDB

- Built a system to monitor online examinations through data analysis of video feeds.
- Collected and processed video data to detect suspicious activities during exams.
- Applied deep learning techniques to enhance detection accuracy.
- Created dashboards and reports to visualize exam integrity metrics.
- Reduced false positives by 15% through data-driven adjustments and model improvements.

Claim Safe | Auto Insurance Premium Recommendation System

Technologies: Python, Machine Learning, Data Visualization, Apache Kafka, PostgreSQL

- Developed a system to recommend auto insurance premiums based on comprehensive data analysis.
- Integrated and analyzed data from multiple sources, including driver history and vehicle information.
- Built predictive models to assess risk and recommend insurance premiums.
- Visualized risk assessments and premium recommendations using interactive dashboards.

EDUCATION

George Mason University | Virginia | USA
Fairfax, VA, USA
Master of Science in Computer Science
January 2023 – May 2024
GPA 3.68/4

Sphoorthy Engineering College | Hyderabad, India
Hyderabad, TS, India
Bachelor of Technology in Computer Science and Engineering
August 2018 – July 2022
GPA 7.4/10

Certificates

AWS Academy Cloud Foundations Badge

Awards and Achievements

Best Project Award

- Recognized for the best project in the CSE group during the spring semester of the 2021-2022 academic year for the Driver Drowsiness Detection system.

Hackathon Achievement

- Secured 5th place among 100+ teams in a hackathon conducted by St. Peter's Institute. Designed an AI-based proctoring system to monitor online exams and prevent malpractice. Awarded a technical internship as a result.