# Dheeraj Kusboori

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## Summary

Operational Data Analyst adept at collecting, analyzing, and interpreting large datasets to drive data-based decision making. Strong analytical, problem-solving skills and high attention to detail, with 8+ years of experience translating data into actionable insights. Proficient in Python, SQL, Tableau, Power BI & Cloud Database systems.

## Skills

- **Machine Learning & AI:** Machine Learning, Deep Learning, Neural Networks, Support Vector Machines, Sentiment Analysis, Natural Language Processing (NLP), Data Mining, Text Mining, Ensemble Learning.
- **Cloud & Database Management:** Azure, AWS, Databricks, Snowflake, Data Pipelines, Data Modeling, ETL, ELT, Google BigQuery, Teradata, DBT, Data Warehouse, Data Architecture, Redshift.
- **Data Analysis & Visualization:** Statistical Analysis, Data Visualization, Tableau, Power BI, Identifying Trends/Patterns, Business Intelligence, Designing Key Performance Metrics/Indicators, Data-driven decision-making.
- **Development & Programming:** Python, R, MS SQL Server , MySQL, T-SQL, Apache Spark, Hadoop, PySpark, Spark SQL, Alteryx, Data Engineering, Web Scraping, API Integration, VBA, GitHub, MS Excel.

## Professional Experience

**Senior Data Analyst | EzyNest | Dallas, TX** **05/2023 – Current**

- Lead a cross-functional initiative to redefine data analytics & BI priorities, integrating sklearn and debugging techniques, resulting in a 40% boost in data utilization.
- Reduced costs 25% across business units through root cause analysis using SQL, Tableau, and Python.
- Directed the deployment of sentiment analysis and NLP for customer feedback analysis, enhancing product improvements and driving a 25% increase in customer satisfaction.
- Designed and transformed data pipelines using Spark's parallelization and data caching techniques, accelerating data processing by 35% and enabling real-time analytics.
- Develop interactive Tableau dashboards aligning KPIs to business requirements for real-time tracking.
- Collaborate closely with the stakeholders and build a positive culture across technical and business teams.

**Graduate Assistant | Southeastern Louisiana University | Hammond, LA** **09/2022 – 05/2023**

- Coordinated departmental activities, playing a key role in day-to-day operations and streamlining tasks.
- Organized and executed departmental events, seminars, and workshops, ensuring successful outcomes.
- Managed all departmental communications, including emails and phone calls, to facilitate seamless operations.
- Advised and guided students on administrative tasks such as registration and departmental orientations, enhancing their academic experience.
- Solved a range of hardware and software issues, demonstrating strong problem-solving skills and technical knowledge.
- Created informative documents detailing troubleshooting steps and equipment setup, showcasing technical writing abilities.

**NOTE: I moved to the United States in December 2019 and was supposed to start my Master's program in 2020. But, due to the COVID 19 complications and the restrictions, I ended up starting my Master's program in Aug 2021.**

**Data Analyst | IVY | Hyderabad, India** **08/2017 – 10/2019**

- Devised marketing strategies to cut acquisition costs through data-based marketing strategies and predictive analytics.
- Conducted an extensive data review using Support Vector Machines, identifying and rectifying discrepancies leading to 20% improved data accuracy.
- Developed advanced analytics solutions incorporating deep learning models like CNN, amplifying marketing campaign impact by 30%.
- Drove 14% rise in revenue by optimizing web layouts and user engagement through A/B testing.
- Established rigorous data governance protocols, ensuring data precision, uniformity and data security across all business facets.

**Data Analyst | Innopark India Pvt. Ltd | Hyderabad, India** **10/2011 – 08/2017**

- Built and deployed fraud detection systems using decision trees, random forests, and predictive models, to restrict system gaming.
- Led a comprehensive migration of the data environment from MySQL to Teradata, resulting in a 25% increase in data processing speed and a boost in the efficiency of data operations.
- Delivered dynamic visual reports using Power BI dashboards, enabling stakeholders to derive real-time insights and make informed decisions.

- Implemented data pipelines with Hadoop ecosystems and Snowflake, streamlining data flow and operational efficiency by 30%.
- Created complex SQL scripts for adept data handling, decreasing data manipulation times and elevating data's overall utility, staying up-to-date with industry best practices.

## Education

**Master of Science (Data Science)| Southeastern Louisiana University** **08/2021 – 05/2023**

- Specialization in ML, Statistical Modeling, Mathematical Modeling, Feature Engineering, Model Optimization.

**Bachelor of Science (Computer Science) | Osmania University** **06/2006 – 04/2009**

- Specialization in Relation Database Management Systems, Statistics, Mathematics

## Academic Projects

**Fake News Detection Algorithm** **08/2021 – 12/2021**

**Objective:** Design and implement an algorithm to identify and filter out disinformation and fake news articles from digital platforms.

- Analyzed and processed a vast dataset of news articles to identify linguistic and structural patterns typical of disinformation.
- Engineered features capturing the nuances of fake news using NLP techniques.
- Developed a machine learning model, achieving a high accuracy rate in classifying genuine vs. fake news articles.
- Presented findings and insights at a university symposium, receiving commendation for innovative approach.

**Technologies Used:** Python, TensorFlow, NLTK, Scikit-learn.

**Real-time Air Quality Monitoring and Forecasting System** **01/2022 – 05/2022**

**Objective:** Develop a real-time system to monitor air quality indices across various locations and forecast potential deteriorations, utilizing a blend of machine learning and time series forecasting.

- Integrated data from multiple air quality monitoring sources and conducted preprocessing to ensure reliability.
- Implemented advanced machine learning algorithms to analyze patterns and correlations in air quality data.
- Developed a time series forecasting model using LSTM (Long Short-Term Memory) networks to predict future air quality levels.
- Deployed a real-time dashboard displaying current air quality indices and future predictions.
- Assessed the model's performance continuously and iteratively improved its accuracy over the course of the project.

**Technologies Used:** Python, TensorFlow, Keras, Scikit-learn, Tableau.

**Multi-Object Detection Model** **08/2022 – 12/2022**

**Objective:** Create a robust deep learning model capable of detecting and classifying multiple objects within a given image or video frame.

- Gathered and preprocessed a diverse set of images to train the detection model.
- Implemented state-of-the-art object detection frameworks, such as YOLO and SSD, to optimize detection accuracy and speed.
- Tuned and validated the model's performance across a range of scenarios, ensuring high precision and recall.
- Integrated the model into a real-time video processing application, allowing for on-the-fly object identification.

**Technologies Used:** Python, TensorFlow, OpenCV.

**Earthquake Prediction using Machine Learning** **08/2022 – 05/2023**

**Objective:** Develop a predictive model that utilizes seismic data to forecast potential earthquake occurrences.

- Processed large volumes of seismic data, identifying key features correlated with earthquake events.
- Utilized regression models and time series analysis to predict the likelihood and magnitude of potential earthquakes.
- Conducted continuous monitoring and model adjustments to ensure prediction accuracy in changing seismic conditions.
- Authored a comprehensive thesis, delineating the project's methodology and findings. The paper was subsequently published on ProQuest. (**Thesis Link**).

**Technologies Used:** Python, Scikit-learn, TensorFlow, Pandas.