Prakash Sudhakar

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SUMMARY

Data-driven Analytics Professional with expertise in Data Visualization, Database Management, Business Intelligence, and Predictive Modeling, eager to contribute to team success through attention to detail and problem-solving skills.

WORK EXPERIENCE

Isola Group, Industrial Engineering Intern   Nov 2020 – May 2021
- Identified packaging failures and partnered with global teams to design, validate and implement standardized on-demand packaging containers to eliminate shipping-related damages and reduced logistics cost with annual cost savings of $250,000.
- Created live weekly Capacity Dashboard using Tableau and MySQL, aiding VP of Global Operations and Production Manager in the decision-making process of re-engineering the line by effectively detecting bottleneck stations through improved transparency.
- Reduced manual interventions, human errors and increased time efficiency by 97.4 % (reduction in execution time from 30 mins to 46 secs) of preparing the Press Performance Qualification by automating the process using MS Excel – VBA Macros, saving 220+ labor hours.

Graduate College [Arizona State University], Data Analyst   Dec 2019 – Oct 2020
- Developed 40+ Tableau reports with multiple dashboards and stories that were used to track and report metrics and KPIs. Wrote scripts to automate reports for ongoing projects, bringing the workforce hours down by 36%.
- Streamlined SQL queries and fixed the queries that were frequently searched to speed up queries by 15%.
- Conducted data quality analysis of large datasets using Python and Alteryx to identify and resolve data integrity issues.
- Prepared technical reports and coordinated with stakeholders and cross-functional teams to improve the business operations.
- Analyzed and validated qualitative research data of Ph.D. Alumni using QDA Miner to identify factors that contribute to student's success.

Fellowship.AI, Data Science Fellow   May 2020 – Aug 2020
- Researched and developed machine learning models using agile software development for the healthcare and fashion industry.
- Detected wounds from the image uploaded by the user using a multi-class classifier, performed web scraping to collect data and cleaned it, applied data augmentation techniques and trained on Res-Net model to achieve an accuracy of 79 %.

Sun Devil Fitness Center [Arizona State University], Data Specialist   Sep 2019 – Nov 2019
- Created ad-hoc reports by wrangling and analyzing large amounts of unstructured data and make compelling dashboards. Presented the story and insights to key stakeholders and senior executives.
- Performed discrepancy checks on raw data using Excel [V-Lookup, Pivot tables, Conditional Formatting, Index and Match] to ensure continuity in accuracy and quality of data.
- Established analytical dashboards to identify key metrics and trends, track spend analysis to facilitate data-driven decision making.

SKILLS

Programming: Python, R, C++, AMPL
Data Visualization: Tableau, Power BI, Google Data Studio, Looker, Dash, Plotly, MS Visio, Lucidcharts
Database Management: MySQL, SQL Server, PostgreSQL, Oracle SQL, MS Access, Google BigQuery, SparkSQL, Alteryx - ETL
Machine Learning: NumPy, Pandas, Matplotlib, Seaborn, SciKit-Learn, Keras, BeautifulSoup
Big Data Systems: Apache Spark, Amazon Web Services (AWS), Google Cloud Platform (GCP), PySpark, Databricks

CERTIFICATIONS

- IBM Certified Data Science Professional
- Google Cloud Platform Specialization – From Data to Insights
- Advanced SQL Certification – LearnSQL
- Machine Learning - Stanford University

PROJECTS

- **Market Basket Analysis [eCommerce Analytics] –** Investigated 3M+ grocery order and generated association rules to discover customer purchasing patterns and high demand products. Implemented MBA - FP Growth algorithm in Pyspark to build frequent item pairs.
- **Location-Based Recommendation System [IBM Capstone] –** Recommended clients to start a new business by identifying venue segments based on the customer's search query. Scraped data and utilized Foursquare API to query nearby venues and performed geospatial analysis.
- **CIFAR 10 Image Classification –** Trained CNN with various optimizers and compared its accuracy to the machine learning models upon dimensionality reduction. Fine-tuned pre-trained VGG 16 model to improve accuracy up to 89% using Transfer Learning.
- **Credit Card Fraud Detection –** Implemented ANN, random forest, XGBoost classifier, and predictive models for the detection of risk fraudulent transactions. Resolved the class imbalance by incorporating sub-sampling concepts to achieve uniformly distributed results.
- **Compressive Strength Prediction –** Performed statistical regression modeling by leveraging data cleaning, transformation and feature engineering to predict the concrete compressive strength, achieving an R-Squared accuracy of 83%.
- **Time Series Forecasting –** Performed S-ARIMA, Holt-Winters, Transfer Function models to analyze and forecast the climate data with a MAPE value of 3.78. Conducted explanatory data analysis and analyzed the ACF & PACF plots to understand the stationarity of the process.
- **Database Design and Modeling –** Designed relational databases using Entity-Relationship models and normalization forms to manage and optimize inventory. Developed a web application that allows users to access the database through dynamic web pages.

EDUCATION

Arizona State University, Master of Science in Industrial Engineering [GPA – 3.42/4]   2019 – 2021
- **Coursework:** Applied Data Science, Information Management Systems, Time Series Analysis, Advanced Big Data, Statistical Data Mining, Regression Analysis, Deterministic Operations Research, Supply Chain Management, Production Systems, Design of Experiments.

Anna University, Bachelor of Engineering in Mechanical Engineering [GPA – 8.2/10]   2015 – 2019