

Prakash Sudhakar

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WORK EXPERIENCE

Graduate College – Arizona State University, Data Analyst

Dec 2019 – Present

- Developed 40 + interactive financial & marketing dashboards, geospatial analysis, KPIs and ad hoc reports using **Tableau** and open source tools to generate insights into student enrollment & ASU staff data.
- Streamlined **SQL queries** & fixed slow running queries, reducing the time required to generate data integrity reports.
- Conducted in-depth data quality analysis of large datasets using **Python** and **Alteryx** to identify data consistency.
- Prepared technical documentation & communicated to stakeholders and teams to improve strategic business operations.
- Analyzed qualitative research and survey data of Ph.D. Alumni using **QDA Miner** to better understand alumni operations.

10:12 Sports, Data Analyst – Pro Bono Consultant

May 2020 – Present

- Recommended strategies and analytical techniques to improve youth mentorship and employment opportunities.

Fellowship.AI, Machine Learning Fellow

May 2020 – Aug 2020

- Wound Tissue Analysis:** Restructured a Wound/Burn Classification Application for First Respondents.
- Multi-modal Search Engine:** Improved production level of visual-textual embedding model for the detection of fashion products.

Sun Devil Fitness Center – Arizona State University, Data Analyst

Sep 2019 – Nov 2019

- Collection and extraction of data to discover new insights. Oversaw data protection and troubleshooting.
- Worked extensively on **MS Excel** and Google Sheets using functions such as Macros, **Pivot Tables**, and **VLOOKUP**.
- Developed data visualizations using **Tableau** to generate business and analytical insights & created business intelligence reports by integrating quantitative findings and raw data.

Caterpillar Private India Limited, Industrial Engineering Intern

May 2018 – Jun 2018

- Resolved issues in the assembly line by implementing improvised SOP & work instructions to reduce the cycle time by **3 percent**.
- Assisted in manufacturing process implementation for New Product Introduction on transmission and final drive assemblies.

SKILLS

Programming: Python, Scala, SAS, R, C, C++

Data Analysis | Visualization: Tableau, Power BI, Data Studio, Dash, Plotly, Google Analytics, Alteryx, Advanced Excel

Databases: MySQL, SQL Server, PostgreSQL, Oracle SQL, Google BigQuery, SparkSQL, MongoDB, Couchbase

Machine Learning: NumPy, Pandas, Matplotlib, Seaborn, SciKit-Learn, Tensorflow, Keras, PyTorch, BeautifulSoup

Big Data & Cloud: Apache Spark, Hadoop, Amazon Web Services, Google Cloud Platform, PySpark, Docker

Data Warehousing/Reporting Tools: MS Visio, MS Word, Lucidcharts, Jira, Confluence, Informatica (ETL)

Six Sigma | Lean Manufacturing: FMEA, 5S, DMAIC, Control Charts, Time & Work Study, Continuous improvement, Root cause analysis

Certifications: Tableau Certification (In Progress), Data Science Professional Certificate (IBM), Lean Six Sigma Green Belt (KPMG)

PROJECTS

Location-Based Recommendation System | Beautiful Soup, Foursquare API, Folium, Scikit – Learn

- Segmented the neighborhoods in Arizona based on the customer's search query to make recommendations to the client.
- Web scraped data & used the Foursquare API to query nearby venues and performed geospatial analysis.

Route Planning & Optimization | AMPL/CPLEX Solver, Gurobi

- Formulated an optimization model to solve the TSP with Branch & Cut, Sub-Tour Elimination and Add & Swap Heuristics.

Image Classification | Keras, Scikit-Learn, Python

- Trained CNN with various optimizers and compared its accuracy to the machine learning models upon dimensionality reduction.
- Fine-tuned pre-trained VGG 16 to improve accuracy by up to 89% using Transfer Learning.

Time Series Analysis & Forecasting | JMP

- Performed SARIMA, Holt-Winters, Transfer Function models to analyze and forecast the climate data with MAPE value of 3.78.
- Analyzed the ACF & PACF plots to understand the behavior and stationarity of the process.

Credit Card Fraud Detection – Risk Management | Scikit-Learn, Seaborn, Python

- Implemented ANN, ensemble learning, and predictive models for the detection of risk fraudulent transactions.
- Resolved the class imbalance by incorporating sub-sampling techniques to achieve uniformly distributed results.

Database Design and Modeling | MySQL Workbench, VisualBasic.NET

- Designed a relational database using E-R modeling and normalization techniques to manage inventory.
- Deployed a GUI that allows users to access the database through web pages.

EDUCATION

Arizona State University

Expected May 2021

Master of Science in Industrial Engineering (*Specialization: Statistics & Data Science*)

CGPA – 3.4/4.0

- Coursework:** Advanced Analytics for Big Data/AI, Statistical Data Mining, Design of Experiments, Applied Data Science, Decision Support System, Time Series Analysis, Regression Analysis, Deterministic Operations Research, Supply Chain Modeling.

Anna University

2015 – 2019

Bachelor of Engineering in Mechanical Engineering (*Specialization: Operations Research*)

CGPA – 8.2/10