Prakash Sudhakar

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EDUCATION

Arizona State University

M.S. Industrial Engineering *(Statistics & Data Science)*
Expected May 2021 | CGPA: 3.4/4

Anna University

B.E. Mechanical Engineering *(Operations Research)*
June 2015 - Apr 2019 | CGPA: 8.2/10
Thesis: *Optimization of Microchannel Heat Sink using Plate fins at different concentrations of Al2O3 nanofluid.*

SKILLS

Languages

Python, Scala, R, C, C++

Analytics & Visualization

Tableau, Power BI, Knime, Google Analytics, Data Studio, Advanced Excel

Databases

MySQL, SQL Server, MongoDB PostgreSQL, Couchbase, BigQuery, SparkSQL

Machine Learning

Scikit-Learn, Keras, PyTorch, Seaborn, Numpy, Pandas, Matplotlib

Big Data & Cloud

Apache Spark, Hadoop, AWS, Google Cloud Platform, PySpark

COURSEWORK

Advanced Big Data, Statistical Data Mining, Design of Experiments, Deterministic Operations Research, Applied Data Science, Time Series Analysis, Regression Analysis, Decision Support System.

CERTIFICATIONS

Tableau Certified Desktop Specialist (In Progress), Data Science Professional Certificate **(IBM)**, Deep Learning Specialization **(deeplearning.ai)**, Machine Learning **(Stanford Online)**, Lean Six Sigma Green Belt **(KPMG)**

EXPERIENCE

Arizona State University | Data Analyst

Sep 2019 – Present | Tempe, AZ

- Developed KPIs, interactive financial and marketing dashboards using Tableau and Kepler.GL to generate insights into student enrollment & staff data at ASU.
- Improved efficiency of SQL queries & fixed slow running queries, reducing the time required to generate data integrity reports.
- Conducted data quality analysis on large data sets by leveraging Alteryx to identify data consistency & integrity. Produced technical documentation to business stakeholders and teams to improve business strategies.
- Analyzed qualitative research and surveys of Ph.D. Alumni using QDA Miner to better understand alumni operations.

Fellowship.AI | Machine Learning Fellow

May 2020 – Present | San Francisco, CA

- **Wound Tissue Analysis:** Worked with Grossman Burn Center to develop a Wound/Burn Classification App for first responders.
- **Website Optimization:** Analyzed A/B tests & Multi-Armed Bandits to improve the customer conversion rate on Platform.AI.
- **Multi-modal Search Engine:** Improved the production level visual-textual embedding model for fashion product detection.

10:12 Sports | Data Analytics Consultant – Pro Bono

May 2020 – Present | Baltimore Area, MD

- Developed strategies & analytical solutions for better mentorship and employment opportunities.

PROJECTS

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

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

Route Planning & Optimization | AMPL/CPLEX Solver

- Developed an optimization model to solve the Traveling Salesman Problem with Branch & Cut, Sub-Tour Elimination and Add & Swap Heuristics.

Image Recognition | Keras, Python

- Trained CNN with various optimizers and compared its accuracy to the predictive ML models after performing PCA. Fine-tuned pre-trained VGG 16 using Transfer Learning.

Time Series Analysis & Forecasting | JMP

- Performed SARIMA, Holt-Winters, Transfer Function models to analyze and forecast the climate data. Studied the ACF & PACF plots to understand the stationarity of the process.

Credit Card Fraud Detection | Scikit-Learn, Seaborn, Python

- Implemented ANN, ensemble learning and ML models for fraudulent transaction detection. Resolved the class imbalance by incorporating sub-sampling techniques & SMOTE.

Decision Support System | MySQL Workbench, VisualBasic.NET

- Designed a relational database using normalization and ER modeling to manage inventory. Designed a GUI that allows users to access the database through dynamic web pages.