surhudk@gmail.com | surhudkhare.github.io **Surhud Khare** (480) 849-6821 | linkedin.com/in/surhud-khare

Education

M.S. Business Analytics, W. P. Carey School of Business, Arizona State University, Tempe ***May '18***
Courses: Marketing Analytics, Applied Analytics, Data Mining, Decision Modelling **GPA: 4.0/4.0**
Achieved A+ in Enterprise Analytics course

B.E., Electronics & Instrumentation, Birla Institute of Technology and Science, Pilani ***Jul '15***

Professional Experience

Business Analyst, Mu Sigma Inc., Bangalore ***Jul '15 – May '17***

- Worked as a Research Associate for a US based Fortune 500 pharmaceutical client on end-to-end projects
- Developed statistical models for healthcare outcomes such as resource utilization and treatment patterns to compare performances of various drugs using datasets with up to 25 million rows
- Automated the process of Exploratory Data Analysis and Quality Control reducing the time taken by 50%
- Executed exploratory data analysis, hypothesis testing, survival analysis and modelling for 2 publications

Conference Publications

- Co-author/analyst, Abstract, *Blood*, Journal of American Society of Hematology ***Dec '16***
- Co-author/analyst, Poster, 58th ASH Annual Meeting and Exposition, San Diego ***Dec '16***
- Co-author/analyst, Abstract, 22nd European Hematology Association Congress, Madrid ***May '17***

Recent Projects

Fuel consumption optimization for Aviage systems *[Python]*

- Profiled the fuel consumption rate using flight data and ML algorithms such as SVM, Random Forest etc.
- Building a recommendation model for the nominal aircraft fuel consumption rate based on the profile (on-going)

Predictive modelling for insurance fraud detection *[Python, MS Azure ML]*

- Built and compared classification models to predict fraudulent claims using imbalanced dataset
- Documented end-to-end workflow including data pre-processing, visualization and modelling using Jupyter
- Compared visualization libraries in Python – matplotlib, bokeh, seaborn

Video games sales trend analysis *[Tableau]*

- Created Tableau dashboard for analyzing the trends in video games sales based on features such as genre, region
- Provided customized recommendations for a couple of scenarios for increasing the sales of a potential new launch

Employee attrition model *[R]*

- Analyzed the factors that lead to an employee quitting an organization using a model dataset created by IBM
- AIC (Akaike Information Criterion) was used to compare the improvement in the model over iterations

Sales prediction for drug stores *[R, MS Azure ML]*

- Predicted daily sales for the 1,115 stores located across Germany for the next 6 weeks
- Achieved a Kaggle score of 0.15 (0.1 was the best score). Low Kaggle score implied better prediction

Consumption pattern characterization *[SPSS, Python]*

- Identified consumption patterns using K-means clustering and Kohonen SOMs
- Used Region and Channel as external labels to create a predictive model based on the clusters

Production Scheduling Optimization *[MS Excel Solver]*

- Planned the production schedule for high volume of orders with limited time to complete all of them
- Assigned workers to items and optimized the production schedule using linear and integer programming

Technical skills

Programming & Software: Python, SAS EG, SQL, R, Tableau, MS Azure ML, MS Excel, MS PowerPoint, Teradata
Statistics & Machine Learning: ANOVA, Regression, Time-series, Optimization, Model tuning, Ensemble methods
Miscellaneous: Lean Six Sigma, Database Exploration, Epidemiology, Survival analysis, Medical codes (ICD9/10, CPT, HCPCS)

Achievements and Responsibilities

- Won a 'Spot Award' and 'Star of the team – 2016' at Mu Sigma Inc. for taking complete ownership, showing excellent communication with the clients and delivering high quality output, December 2016
- Graduate Student Ambassador, ASU W. P. Carey Ambassador Program, 2017-18
- Mentor, Business Communication Training program, Mu Sigma University, Mu Sigma Inc., 2015-17
- Core Member, Society for the Promotion of Indian Classical Music and Culture among Youth, Goa Chapter, 2012-14