

# DEVIN GU

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## SKILLS

**Languages:** Python 3.7, R, MS SQL, Tableau, Java, C++, JavaScript, Mathematica, STATA, AMPL, ARENA, Teradata, Excel

**Libraries:** forecast, caret, Scikit-learn, Pandas, NumPy, Keras, seaborn, ggplot2, tidyverse, XGBoost, tsoutliers, stats, arulesSequences, dplyr, dbscan, prophet, TSA, sampling, RODBC, nnet, gbm, randomForest, rpart

**Skills:** Forecast, Machine Learning, Statistical Learning, Clustering, Sequence Mining, Classification, Hypothesis Test

## EXPERIENCE

**CIGNA, St. Louis, MO**

**May 2018 - Present**

*Data Scientist - Forecast and Analytics Team Lead*

- Designing innovative automated forecast ensemble algorithm including statistical and machine learning models such as ARIMA, Neural Net, Prophet and ETS, improving accuracy from 84.3% to 94.8 %
- Leading organization-wide forecast function, strategizing and revamping the standard operating procedure by integrating quantitative and qualitative forecast, managing to save \$2M inefficient resource management cost
- Directing team to augment campaign return of investment by utilizing predictive modeling (Lasso and Ridge) to classify the most profitable customers with highest propensity, remarkably upheaving campaign performance by 15%
- Unriddling complex customer purchasing and call behavior by clustering and sequence mining 1.5M observations based on 77 features, offering deep-dive insight to help senior management reposition customer-centric service strategy
- Influencing key stakeholders and senior management to adopt data science way of thinking and acting, translating staggering data science concepts to business intuition, doubling initiation of data science projects in past 6 months

**ANHEUSER-BUSCH INBEV, St. Louis, MO**

**Aug 2017 - Jan 2018**

*Analytics Consultant*

- Optimized fleet decision and routing strategy in R, designing ten real-time parameters (e.g. gas price) to ameliorate fleet size, lane selection and reverse logistics decision, resulting in 21% transportation cost reduction
- Conveyed data-driven recommendation to senior management via Tableau, triggering company's decision in procuring 800 electric trucks, a \$720M deal, in 2018

**ST. ALEXIUS HOSPITAL, St. Louis, MO**

**Aug 2017 - Dec 2017**

*Operations Analytics Consulting Team Lead*

- Ran varieties of Hypothesis Tests (paired t and Chi-Square Test) on detecting the effectiveness after implementation of improvements, ensuring continuous improvement effectively boost customer satisfaction and operation efficiency
- Established Kanban for outbound logistics to reduce patients waiting time up to 50% proven by Monte Carlo Simulation, concluding significant trimming of queue size and smoother inbound flow in waiting room during peak hours

## EDUCATION

**UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN, CHAMPAIGN, IL**

**May 2020 - March 2021**

**Master of Computer Science**

- **Current GPA:** 4.00

**WASHINGTON UNIVERSITY, OLIN BUSINESS SCHOOL, ST. LOUIS, MO**

**Aug 2017 - Dec 2018**

**Master of Science in Supply Chain Management**

- **GPA:** 3.70 (45 credits earned; 36.5 credits required to graduate)
- **Award:** Project of the Year - Boeing Center Symposium
- **Honor:** Co-Founder of APICS WashU Chapter

**BRANDEIS UNIVERSITY, WALTHAM, MA**

**Aug 2013 - May 2017**

**Bachelor of Science in Mathematics**

- Double Major in Economics, Minor in Business

## CERTIFICATION

Certified Project Management Professional (PMP)

Certified Six Sigma Green Belt (ASQ CSSGB)

Certified Management Accountant Part 1 (CMA)

Certified in Production and Inventory Management (CPIM)

Certified Supply Chain Professional (APICS CSCP)