

# ABHAY SUBRAMANIAN KANAGAVELRAJAN

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## EDUCATION

UNIVERSITY OF MINNESOTA, Carlson School of Management, Minneapolis, MN

Candidate for Master of Science in **Business Analytics**

May 2023

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Bangalore, India

Bachelor of Engineering in **Computer Science**

August 2020

## EXPERIENCE

CARLSON ANALYTICS LAB, Minneapolis, MN

**Data Science and Analytics Student Consultant**

June 2022 – Present

- Optimizing marketing costs for premier entertainment client | Live Case
  - » Built reinforcement model in Python to predict optimum value of FreePlay for customers to maximize Casino revenue
  - » Predicted player ADT ranges using Gaussian and Bayesian regression models; Measured effect of promotions on revenue with correlation and causal analysis in R and proposed 3 targeted marketing strategies to increase foot traffic
- Reduced candidate performance disparity for EdTech client | Live Case
  - » Segmented candidates into 5 groups using Gaussian Mixture Models clustering based on demographics and test scores; Implemented A/B testing on observational data to measure efficacy of different prep resource on improving test scores
  - » Built Tableau dashboard to visualize regional disparities in candidate testing performance; Implemented Random Forest regression to identify factors driving disparity; Proposed 5 strategies for low performing clusters to reduce dropout rate
- Optimized allocation of resources for Second Harvest Heartland | Live Case
  - » Implemented exponential decay on online media time series data and performed Linear Regression analysis to measure impact on donation amount from various media channels; Increased donation amount by 44% using targeted strategy

**Graduate Assistant**

August 2022 – Jan 2023

- Analyzed revenue and growth of Carlson's custom courses in Salesforce, Python, Tableau and built financial reports, executive decks, developed LinkedIn lead targeting strategy for the Assistant Dean of Carlson School of Management

PRICEWATERHOUSECOOPERS, Bangalore, India

**Experienced Associate 2 | Cloud & Digital**

January 2021 – May 2022

- Saved \$110K in operating expense by eliminating third party software's for US manufacturing client; Spearheaded supply chain architecture solution and built supplier management portal for 3 US clients in QSR, Healthcare & Offshore Drilling
- Built dashboard to track/trace "produce" shipments and deliveries between Farmers-DC-Restaurants for popular US QSR chain and increased order accuracy by 15%; Built dashboard to monitor SKU performance, identify trends and assess risk
- Optimized RFP's and contracts by analyzing suppliers based on defaults in qualification and questionnaire processes

**Intern | Cloud & Digital**

January 2020 – July 2020

- Designed 20+ business intelligence reports by extracting financial transactional data on Oracle databases using SQL and Python scripts and 10+ functional specification documents by gathering business requirements via client interactions

THEMATHCOMPANY, Bangalore, India

**Data Analyst**

July 2020 – January 2021

- Reduced operating expense by 10% by forecasting gaming revenue for Casino Chain in Asia Pacific; Implemented SARIMAX time series model to forecast revenue from table/slot games based on promotions offered to customer segments; Developed Apache Airflow pipeline for data orchestration and Tableau dashboard to tweak features and flags
- Increased customer conversion rate by 22% via A/B Testing experiments for popular US automated movie retail service; Extracted control-treatment customer segments using SQL scripts; Executed 50+ marketing campaigns to 25M customers

## DATA SCIENCE PROJECTS

- » **Enhanced Fulfillment for 'The Good Acre'** – Segmented farmers into 3 clusters with k-means on demographics, fulfillment delays and item sold; Predicted shipment delay distributions for each farmer using gaussian regression
- » **Customer Segmentation for an Airline Client** – Investigated customer travel patterns and segmented flyers into 4 groups with K-prototype in Python; Designed 8 targeted vacation packages to enhance loyalty program adoption
- » **Demand Planning for Walmart** – Forecasted product sales for 28 days with ensemble LightGBM and Neural network regression model; Analyzed association rules for products and recommended demand planning strategies

## TECHNICAL SKILLS

- » **Tools:** Python, R, SQL, Tableau, MS Excel, Hadoop, AWS, Hive, Spark, Snowflake, Oracle ERP Cloud, Salesforce
- » **Python Libraries:** Matplotlib, Seaborn, Scikit-Learn, Pandas, NumPy, TensorFlow, Keras, NetworkX
- » **Core Competencies:** Time Series Analysis, Linear Regression, Non-Linear Regression, Neural Networks, Predictive Modelling, Unsupervised Machine Learning, Classification, Clustering, Exploratory Data Analysis, A/B Testing, Causal Inference and Experimentation, Extract / Transform / Load, Big Data Analytics, Data Orchestration, Data Visualization