**SAM MUSCH**

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**EDUCATION**

UNIVERSITY OF MINNESOTA, Minneapolis, MN

Carlson School of Management

Candidate for **Master of Science in Business Analytics** May 2020

UNIVERSITY OF NEBRASKA OMAHA, Omaha, NE

College of Business Administration

Economics (BSBA) May 2019

*Magna Cum Laude ETS Business Exam: 97th percentile*

**EXPERIENCE**

CARLSON ANALYTICS LAB, Minneapolis, MN

**Analytics Student Consultant** July 2019 – Present

**Client: Leading Hospitality and Entertainment Business**

* Increased revenue by est $1.4M / month by identifying high value customers and reducing attrition
* Used clustering, decision trees, Poisson Regression to identify these customers
* Led team in creating visualizations and transfer documents to keep technical info clear

**Client: Mall of America (Exploratory Analytics)**

* Saved est $5M / year with predictive model to optimize number of hourly staff
* Built user-adjustable Tableau heatmap to improve staff location within mall

UNIVERSITY OF NEBRASKA OMAHA, Omaha, NE

**Men’s Golf Team (NCAA Division 1 Program)** August 2015 - May 2019

* Played four years, named team captain by head coach for final two years
* 1 of 5 players in conference named All League for academics and individual play
* Built Tableau dashboards following tournaments to improve on software used by team

**TOOLS** **& APPLICATIONS** | ***Portfolio: sammusch.github.io/projects***

* Python, Rstudio, SQL, Tableau, Microsoft Suite (Microsoft Excel, Word, Powerpoint, Access)
* AWS (S3, SageMaker), Spark, Hive, Hadoop, Linux, Git

Crime in Minneapolis (Team)

* Built XGBoost model in AWS with Sklearn to predict daily crime per police precinct within 25%
* Included daily tweet sentiment, neighborhood poverty measures and weather information
* Used Tableau to display past trends and run time lapse throughout the year

Japan Restaurant Forecasting (Team)

* Researched and identified culture specific factors to include in predictive model
* Helped create ensemble of LSTM and RNN models to predict daily traffic within 20%

Stedman’s Café Consulting (Undergrad, Team)

* Used SQL, R and Tableau to identify high-profit margin item
* Established ETL code and clear notes to handle messy data for future teams to build on
* Posted visuals and worked with cafe team to make sure analysis was clear and actionable