# **Grant Barland**

## Masters of Science in Business Analytics

Business Analyst with experience in statistical experimentation and non-technical presentation skills. Passionate about applying machine learning and causal inference tools to generate business insights.

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#### **EXPERIENCE**

# **Analytics Student Consultant**

Carlson Analytics Lab, Minneapolis, MN

November 2021 - Present

## **Machine Learning Research for Workforce Optimization Company**

- Automated call center employee evaluations by building machine learning tools to analyze phone call transcripts.
- Designed a 7-dimensional framework to assess the quality of a phone call based on different factors of agent performance.
- Evaluated the accuracy of automated scoring models by measuring their correlation with human labeled scores.
- Identified key performance metrics of internal dimension coherence to validate natural language processing tools for consistency.
- Documented project findings and how to use the automated scoring tool for client guidance.

# **Causal Analysis on Employee Attrition**

- Applied Propensity Score Matching and Regression analysis to determine what factors contribute to employee turnover.
- Evaluated the effect of working overtime on employee attrition by matching for confounding variables in employees.

# **Be The Match - Ethnic Disparities in Patient Outcomes**

- Performed exploratory data analysis on patient outcome data to derive insights that improve transplant success rates in racially diverse patient populations.
- Used statistical analysis and data visualization to discover new opportunities for the company to intervene at hospitals and improve outcomes for the most at-risk patients.

# **Electrical Engineer**

Unified Theory Inc, St. Paul, MN

June 2019 - September 2021

- Collaborated with project managers, technicians, business stakeholders, and engineering design teams to ensure deadlines and budgets are met with the highest client value possible.
- Managed a 4-person engineering team, while facilitating daily project meetings to communicate project requirements, give team feedback, and deliver client updates.

#### **SKILLS**

Python, R, SQL
Predictive Modeling
Natural Language Processing
Statistical Analysis
Causal Inference
Linear Programming

## **EDUCATION**

# **University of Minnesota**

## **Carlson School of Management**

Masters of Science in Business Analytics

September 2021 - August 2022

# **University of St. Thomas**

Bachelor of Science Electrical Engineering Physics Minor

September 2015 - June 2019

## **PROJECTS**

## **Health Data Competition**

Explored Hospital Survey data to determine how patient experience relates to the care provided.
Created a 'Hospital Score' metric to capture overall patient satisfaction and used data visualization, predictive modeling, and correlation analysis to determine why hospitals were rated highly.

## **Natural Language Processing**

Built a BERT transformer model by training a classifier that could determine if a FaceBook post contains appreciation, complaints, or feedback using the Hugging Face Transformer library.