Joshua B. Cunningham

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EDUCATION

Georgia State University, J. Mack Robinson College of Business, Atlanta, GA
Master of Science in Data Analytics - December 2024

Kennesaw State University, Kennesaw, GA
Bachelor of Business Administration in Management - May 2020

WORK EXPERIENCE

Emory University **Atlanta, GA**
Teaching Assistant March 2019 – August 2022
Big Data Program and Women in Technology (WIT) Teaching Assistant Atlanta, GA

- Led over through establishing statistical models with use of RapidMiner and Microsoft Azure Machine Learning. Methodology used is CRISP-DM for business applications.
- Taught data analysis methodologies online to 50 students such as linear regression for a companies merger and acquisitions, data cleansing on a homeless shelter, and data understanding on why a wine dataset was not suitable.
- Instructed on methodologies of text mining on 3 SMS texts banks of over 60 thousand lines to ascertain legitimate texts opposed to spam and association rules for recommender on baskets of over 10 thousand SKUs.
- Guided student through capstone project and held office hours and labs for students. Gave individualized feedback to each student on capstone project to mentor and guide forward.
- Demonstrated in person and through email, how to tackle data analysis questions both pertaining to course as well as guidelines for outside scope of program such as how to handle datasets of over 200 thousand entries.
- Analyzed each student's common problem areas and positioned to quickly respond to questions within 5 seconds. Answered on average 25 questions per 2-hour session thus leading to more students getting a certificate.
- Oversaw on average 20 capstone projects per program provided feedback to lead student's development for future endeavors in sector.
- Wrote lecture notes before 11 online instructed lab session each certificate period, especially devised to tackle students' problems from in person teachings prior.

Georgia State University **Atlanta, GA**
Graduate Research Assistant January 2024-Present
External Sprint

- Conducted Industry Market Research for the firm to help plan for future product releases.
- Performed Web Scraping on product reviews to perform text analysis and mining for industry research.
- Reported findings each week to the client to receive feedback for research purposes.

SKILL AND SOFTWARE EXPERIENCE

RapidMiner, a common data mining tool for machine learning. Handled datasets of over 150 thousand entries.

- Performed text mining, association rules analysis, regression, decision trees, neural nets, K- clustering, and data cleansing on multiple sets including wage, and customer satisfaction. Created visualizations of resulting data.

Statistical Analysis System (SAS), a standard statistical analysis tool. Wrangled over 1.5 million data points in one project.

- Ran code for statistical tests of proportions, individual means, as well as nonparametric. Can create data sets and manipulate manually.

Applied Binary Classification.

- Determined credit worthiness and associated development of a credit risk score with a credit data set in SAS consisting of over 1,500,000 data points and 355 variables. Determined whether a line of credit should be given to an individual as well as ran a profit analysis on built model. Took into consideration loss due to false positives as well as cost of acquisition of new customers based off industry standards. Built simplified and full models for analysis and presentation to company executives.

- Profit analysis concluded per customer accepted would gain $101.80 in profit or per 1000 customer $101,800 only leveraging 9 variables for a simplified model.
  R Studio, a cloud-based IDE to run the R programming language. Datasets while using R consisted of around 50 thousand rows.
- Coded for statistical analysis. Designed multiple graphics for aid in statistical understanding of data sets as well as creation of confidence intervals interpretations and stratified analysis.
  Business Understanding. Important first step in CRISP-DM methodology.
- Able to take models, evaluate and deploy for applicable business implementation across industries for simplified and full models. Gather voice of customer data and utilize it in understanding of business needs. Apply needs of business to application of modeling and data outcomes.