Graham Chickering

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Education

Amherst College, Amherst, MA *Expected May 2021*
Bachelor of Arts in Statistics

- GPA 3.66/4.00
- Relevant Coursework: Advanced Data Analysis, Statistical Inference, Probability, Linear Algebra, Multivariable Calculus, Machine Learning, Time Series Analysis, Multivariate Data Analysis, Data Structures, Computer Systems
- Skills: R, SQL, Java, Python (Numpy, Pandas, Scikit-learn, TensorFlow, Keras), Google Cloud Platform, Github, Agile

Work Experience

Data Science WAV Organization – Project Valleybike Amherst, MA *August 2020 – December 2020*
Research Assistant

- While partnering with a community nonprofit bike sharing program, through Agile methodology worked with team to plan and deliver concrete goals to analyze information on over 160,000 bike trips and user demographic information
- Took project lead on creating multiple interactive visualizations including leaflet plots, heatmaps, and dashboards to analyze and display over 3 years' worth of bike trip information to inform community planners on best locations to build new bike stations

GiveCampus Washington, DC *June 2019 - September 2020*
Business Analytics Intern

- Utilized **PostrgeSQL** to discover 18 key insights to help improve company's marketing and sales strategy
- Built an **R Shiny Dashboard** that automated manual processes that has saved 50+ hours for the Sales team.
- Created a **Python** web scraping script to perform competitor analysis and discover 1050 new schools for targeted outreach
- Utilized data mining techniques such as clustering to segment customer base and prioritize outreach

Analytics Department at Dartmouth Hitchcock Medical Center Lebanon, NH *June 2018 - August 2018*
Data Analytics Intern

- Anonymized 20 patient identifiers using **SQL** for 100,000 different patients to allow for a more in-depth analysis on patient care
- Using anonymized data, created a de-identified patient data set for use by future researchers and Dartmouth college students

Projects

Detecting Pneumonia within CT Scans- Advanced Data Analysis *December 2020*

- Through utilizing the **Google Cloud Platform**, stored 5863 Chest CT images of patients who had pneumonia or were healthy
- Performed image transformation techniques on CT scans using **TensorFlow** to create a structured data set
- Trained a Convolutional Neural Network using **Keras** in **R**, a deep learning algorithm, that correctly classified 89% of scans

Identifying Fake News- Machine Learning *December 2020*

- Worked with a Fake News data set that contained 20000 real and fake news articles to perform NLP tasks
- Performed lemmatization and other sentiment analysis techniques to clean the text data and prepare articles for analysis
- Trained a LSTM Recurrent Neural Network using **Keras** in **Python**, that correctly classified a news article with 92% accuracy

Predicting Cancer Type by Gene Expression- Multivariate Data Analysis *April 2019*

- Utilized both supervised and unsupervised learning techniques in **R** to identify influential genes of 5 different cancer types
- After running Feature Extraction to find the most influential variables, utilized K-Means algorithm for Clustering and Random Forest algorithm for Classification to identity 55 key genes for each unique cancer type

Leadership & Volunteer Activities

First Year Outdoor Orientation Trip Leader Amherst, MA *September 2019*

- Completed leadership training specializing in diversity and inclusion
- Facilitated discussions and activities among first years to establish what is expected of a member of the Amherst community
- Responsible for ensuring the safety of the first years on the trip and helping to make their transition as seamless as possible

Homeless Children's Playtime Project Washington, DC *June 2019 -August 2019*

- Developed relationships with all the kids at the shelter by playing games and doing arts and crafts with them
- Helped increase their personal social skills and saw an improvement in their ability to communicate their thoughts

Honors

Mu Sigma Rho National Statistics Honor Society *March 2020*