MAX HARRINGTON

DATA SCIENTIST

EXPERIENCE

Metis — New York, NY
Data Scientist — July 2021 to Sept. 2021

- Completed an immersive data science bootcamp and built predictive models using regression and classification to solve problems across various domains, including college tuition pricing and prison recidivism
- Used natural language processing to determine language patterns and classify internet comment toxicity
- Created interactive visualizations and presented findings to peer and senior data scientists; **see project section for more details**

NYC Department of Education — New York, NY
STEM Lead Teacher — July 2016 to Sept. 2021

- Taught math and computer science to high school students who had previously dropped out of school
- Designed digital, differentiated, and culturally aware math content, doubling the school's previous pass rate
- Led both grade and content teams in adapting digital learning to provide remotely accessible curriculum for students with low attendance, boosting engagement by 50%

Outward Bound — New York, NY
Lead Instructor — Aug. 2015 to Aug. 2016

- Led wilderness expeditions for 12-20 students of all ages and corporate groups
- Planned and facilitated socio-emotional lessons for students to help close the achievement gap

Discovery School of Virginia — Dillwyn, VA
Senior Group Leader — Aug. 2014 to Aug. 2015

- Coordinated the safety and support of teenage boys with emotional and behavioral disorders, with 90% finding success after graduation
- Taught students outdoor and life skills, from woodworking to anger management, all in wilderness setting

PROJECTS

Learn More, Spend Less

- Collected various key metrics for 2400 four-year institutions across the US in order to predict a fair tuition price through supervised learning
- Leveraged BeautifulSoup to scrape and prepare over 47 features for each college
- Engineered multiple features to accurately capture tuition-based relationships, boosting r^2 from 0.83 to 0.87
- Built linear regression model to predict college tuition price within $5000 Mean Square Deviation

Potential Prison Patterns

- Analyzed data of 11000 prisoners in Broward County, FL to identify a given prisoner's recidivism risk using classification
- Applied feature engineering to identify and incorporate trends across race, gender, and other dimensions, improving classification accuracy
- Created classification model with accuracy equivalent to the industry standard (0.70), while balancing recall and accuracy

Capturing Crude Comments

- Examined 150,000 Wikipedia comments to identify various forms of toxic speech using NLP
- Applied topic modeling techniques such as NMF and LDA to identify key features in text for classification and provide insight on toxic comment patterns.
- Trained logistic regression classifier to identify and predict various forms of hate speech with 96% accuracy

CONTACT

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EDUCATION

St. John's University
Masters Math Education 2018

Boston University
Bachelor of Arts English 2014

SKILLS

PYTHON
NumPy
Pandas
Regex
BeautifulSoup
sci-kit learn

SUPERVISED LEARNING
Linear/Logistic Regression
Tree Based Models
Ensemble Models

UNSUPERVISED LEARNING
Clustering
Dimensionality Reduction
Natural Language Processing

VISUALIZATION
Tableau
Seaborn
Matplotlib
PowerPoint

OTHER
SQL
Excel
Google Suite