# **KATIE CAO**

**DATA SCIENCE & ANALYTICS** 

# **CONTACT**

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katiecao1.github.io

# **PROFILE**

Background in consulting with focus on building solutions using data analytics and behavioral economics to improve efficiencies and revenue.

# **EDUCATION**

2019

FORDHAM UNIVERSITY [NEW YORK, NY]

Master of Science in Analytics

GPA: 3.80

2017

MERCYHURST UNIVERSITY [ERIE, PA]

# Bachelor of Arts in Finance and Accounting

Summa Cum Laude

# **TECHNICAL SKILLS**

- Data Analysis
- Statistics and Probability
- Machine Learning
- Natural Language Processing
- Data Visualization
- Database Management
- Python, R, SQL
- Pandas, Scikit-learn, NLTK

# **AWARDS**

- First Prize 2018 Fordham
   Consulting Case Competition
- Honorable Mention 2019
   Fordham Data Crunch Basketball
   March Madness Bracket Prediction

#### **EXPERIENCE**

JUL 2019 - SEP 2019

NEW YORK, NY

#### Data Scientist Intern | Zenon Al

- Developed customer segmentation tool using Artificial Neural Network and XGBoost algorithms with Python and Oracle MySQL to reduce the number of churners by 10% for an online trading platform client
- Streamlined client's internal paperwork process by 30% by building a Natural Language Processing tool using Python regular expressions that extract contract terms from sentences

MAR 2018 - JUL 2018

NEW YORK, NY

# Senior Associate | Ideas42

- Received early promotion for outstanding work performance
- Led a team of two by providing technical guidance and engagement opportunities
- Provided regular reporting on project performance to leadership team and high-level executives
- Streamlined reporting process by 50% by writing VBA macros to automate consolidation tasks

AUG 2017 - MAR 2018

NEW YORK, NY

#### Associate | Ideas42

- Performed both qualitative and quantitative analyses to evaluate business and management decisions using key metrics
- Coordinated with cross functional teams in the NY, Boston, DC, and San Francisco offices to build behavioral solutions based on evaluation results
- Queried data from internal and client's databases to perform ad hoc reporting

# **PROJECTS**

# **College Basketball Bracket Prediction**

 Engineered new features and applied Random Forest, Logistic Regression algorithms and GridSearch to predict 2019 NCAA Men's College Basketball Tournament bracket with 79% accuracy and 0.53 log loss

# **Employee Turnover Prediction – HR Analytics**

 Performed Exploratory Data Analysis and built Random Forest and Gradient Boosting classifiers with Cross Validation, tackling data imbalance using SMOTE to predict employee attrition

#### Stock Portfolio Recommendation Using Sharpe Ratio

 Created a S&P 500 stock portfolio with a 7% risk-adjusted return by using pandas and Beautiful Soup to scrape data from Yahoo Finance, calculating Sharpe Ratio, storing and querying it from a PostgreSQL server