

# KATIE CAO

## DATA SCIENCE & ANALYTICS

### CONTACT

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### PROFILE

Background in consulting with focus on building solutions using 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

- Machine Learning
- Natural Language Processing
- Statistics and Probability
- Data Visualization
- Advanced Analytics
- 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 AI

- 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**