

# Joshua Shamouil

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## PROFESSIONAL EXPERIENCE

### Marketing Statistician

CNO Financial Group, Chicago, IL

September 2019 – Present

- Saved over \$500k developing classification machine learning models to improve marketing campaigns
- Created and automated custom reports to track and analyze customer retention, value, and company performance
- Found market opportunities by mapping geolocations of prospects, customers, and branches
- Led Purdue internship program where students used machine learning to find which customers would cross sell

### Quantitative Analyst

Markov processes International, Inc., Summit, NJ

February 2019 – September 2019

- Manage client projects, topics in asset allocation, financial simulation, reporting, and statistical analysis
- Product Specialist in MPI's Stylus investment analytics software, including a deep understanding of calculations
- Proficient in automation of MPI's proprietary scripting languages in platform's environment
- Other projects: collaboration on private equity model and Morningstar Mutual Funds Ratings research

### Quantitative Risk Management Intern

DTCC, Jersey City, NJ

May 2018 – August 2018

- Used R, SQL, and Excel to produce back testing reports for VaR, coverage ratios, deficiencies
- Data science project to predict deficiency occurrence using linear and logistic regression in R
- Organized over 15 events including ORM executive events and Yankee game networking events

### Insurance Agent

Bankers Life, Parsippany, NJ

May 2016 – August 2016

- Earned \$8,000 in commissions, submitted 48 insurance applications in a 10-week span, first place intern (out of 88)
- Well versed in products including retirement finances, life and health insurance, and long-term care insurance
- Understood how to communicate and uncover client's needs from firsthand field experience

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## EDUCATION

Rutgers University, New Brunswick, NJ

Master of Science, Financial Statistics & Risk Management

September 2017 – December 2018

Rutgers University, New Brunswick, NJ

Bachelor of Arts, Mathematics, Double Minor: Economics, Statistics

2017

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## KAGGLE, MACHINE LEARNING AND PROGRAMMING PROJECTS

### Bank Marketing Classification Model

2021

- Predict which customers should be targeted for the bank's term-deposit marketing campaign
- Random Forest Classifier, one-hot encoding, strong model accuracy, Python, Data Cleaning

### Pokemon Videogame Cluster Analysis

2021

- Determined which Pokemon types are optimal for a player's starting lineup using the damage multiplier
- Unsupervised learning, K-Means Clustering, hierarchical clustering, Python, Pandas, Jupyter

### Automated Moving Average Trading Strategy

2020

- Used Alpaca API and python to develop simple MA strategy on the SPY index
- Created a system for finding signals and back testing strategy

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## TECHNICAL AND OTHER SKILLS

**Core Domain Expertise:** Classification Modeling, Machine Learning, Regression, Insurance, Marketing

**Programming:** Python, SKlearn, SAS, SQL, Java, Pivot Tables, HTML, CSS, PowerPoint, Excel, Data Robot, MPI Stylus

**Interests:** Kaggle, Traveling, Freestyle Snowboarding, Cooking, Ultimate Frisbee, Economics

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## LEADERSHIP ACTIVITIES

### HighSight High School Math and Physics Tutor Volunteer

2019-2020

- Tutored high school students in Geometry, Algebra, Physics, and Calculus two hours a week

### Quantitative Finance Club Graduate Chair

2018

- Organize and conduct weekly meetings, quantitative finance competitions, and resume clinics

- Gave the following lectures: Time Series Analysis and Introduction to Linear Regression

2016