**MATT TOROK**

Ocean City, NJ, 08226 | 856-693-5686 | torokmg@gmail.com | [GitHub](https://github.com/torokmg/) | [Blog](https://torokmg.wixsite.com/website) | [LinkedIn](https://www.linkedin.com/in/matthew-torok/)

**JOB TITLE**

Data Scientist and machine learning engineer with a passion and curiosity for solving problems through analytics. Experience in data acquisition, statistical analysis, machine learning, deep learning, NLP and over 9 years of financial analysis and modeling. With a background in private equity, I bring strong skills in team leadership and project management that help companies to reach their goals.

**TECHNICAL SKILLS**

* Python
* SQL
* NumPy
* Scikit-learn
* Pandas
* GitHub
* Machine Learning
* GitBash
* PySpark
* Seaborn
* MatLab
* Hadoop
* Natural Language Processing
* Time Series
* Tableau
* Excel (Macros, V-Look Up, Modeling)
* PowerPoint
* Project Management
* Data Analysis
* Data Visualization

**TECHNICAL PROJECTS**

**NFL Play Call Prediction -** [**https://**](https://github.com/torokmg/m5-time-series)[**github.com/torokmg/NFL-Play-Calls**](https://github.com/torokmg/NFL-Play-Calls)

Created a model to predict each NFL teams next play call

* Used web scraping to gather individual play call data
* Merged play call data with each teams offensive and defensive statistics
* Used python to find the best hyper-parameters for time series modeling
* Used Bagging Classifier, Random Forest, and Logistic Regression to find best performing model

**M5 Time Series Forecasting Competition -** [**https://github.com/torokmg/m5-time-series**](https://github.com/torokmg/m5-time-series)

Predicted the next 28 days of sales based on 5.5 years of Walmart sales data

* Melted and merged dataset
* Formatted data in pandas so it would be in a usable form for time series analysis
* Used python to find the best hyper-parameters for time series modeling
* Used Sarimax from Statsmodels and LightGBM (LGBM) to predict future sales

**Telco Customer Churn Analysis -** [**https://github.com/torokmg/Telco-Customer-Churn**](https://github.com/torokmg/Telco-Customer-Churn)

Figured out what causes customers to cancel service so they can be retained

* Used SMOTE to balance out the data in order to be able to properly predict who will cancel
* Used Random Forest and Support Vector Classification (SVC) modeling from scikit-learn to make predictions on who will cancel service
* Used a cost-benefit analysis to figure out which model was performing the best

**Zillow Price Modeling -** [**https://github.com/torokmg/King-County-Housing**](https://github.com/torokmg/King-County-Housing)

Used Linear Regression Models to determine the features that most affect housing prices

* Cleaned dataset to get rid of null values and outliers to prevent bias and make the model more accurate
* Used Pandas to create dummies for the categorical features to enable them to be included in the model
* Used Numpy to normalize and scaled the continuous features to prevent bias
* Modeled data using Linear Regression to get a final accuracy score of 79% in predicting housing prices

**EMPLOYMENT HISTORY**

Senior Analyst Private Equity Technology, **SS&C Technologies**, Cranford, NJ 01/2016 - 03/2020

* Act as the Product Manager for our Private Equity fund administration software throughout the lifecycle of the product
* Determine the vision for each new product launch and update and guide the team into accomplishing the goals for each update
* Perform analysis on client data to come up with solutions and improvements to their FundRunner software
* Create User Stories and write up product requirements for chosen improvements and communicate with development on implementing these changes using JIRA
* Cultivates internal relationships with the development teams to enlist their help with client support and modifications to the software
* Releases a Minimal Variable Product to a certain group of my clients, and then follow-up to gain feedback to pass on to our developers in order to make improvements to our final release of the software
* Manage the on-going update of software documentation including release notes, system requirement documents, and ‘help topics
* Performs project management of new client database implementations with a focus on business requirements and data mitigation
* Develops relationships with my assigned clients and gain a deep understanding of their business practices in order to provide world-class support and potentially sell them on a new product or service
* Conducts pre-sales product demonstrations, assists with RFP responses, and helps with the design and setup of proofs of concept for prospective clients
* Provides continuous training for the The Next Round (TNR) and FundRunner Marathon private equity fund management software to my clients
* Continuously monitor our online ticketing system, and either assign these tickets to others within my team or take the ticket myself to fix the issue

Fixed Income Analyst, **JPMorgan Chase**, Newark, DE 01/2013 - 01/2016

* Responsible for the processing of all Fixed Income dividend payments, including payments for Mutual Funds, Municipal Bonds, Corporate Bonds, and Alternative Investment Funds as a member of the Fixed Income group
* Researched dividend announcement information from various vendor sources such as DTC, Euroclear, and SWIFT messages
* Setup new daily dividend announcements using DISS that instructed the system on which accounts to pay and at what rate
* Balanced and adjusted client positions in each security to ensure that they were getting paid correctly
* Reconciled all dividend payments with a payable or receivable balance by identifying the correct counterparty
* Claimed funds due to the firm from outside sources, such as sub-custodians or counterparties, that resulted from failed trades or bond lending claims
* Processed bond borrow claims received from various lenders
* Worked with the counterparties of each transaction to ensure that the each trade was input and processed correctly
* Reversed and adjusted any payments that had been made using the wrong accounts, interest rate, or payable/receivable dates

Alternative Investments Analyst, **Cambridge Associates**, Arlington, VA 06/2011 - 12/2012

* Responsible for researching and tracking the performance of over 200 alternative investment funds which mostly consisted of private equity fund, but venture capital, private equity, real estate investment trusts, leveraged buyouts, growth capital, mezzanine capital, distressed investments, global emerging markets, energy upstream & royalties, and fund of funds were also involved
* Worked closely and conducted due diligence with many of the world's top-ranked fund managers and general partners/limited partners to ensure accurate performance measurements for the Cambridge Associates U.S. Venture Capital Index, the Cambridge Associates Private Equity Index, and the Cambridge Associates REIT Index
* Calculated both the Net Present Value and IRR of each fund that was tracked
* Kept track of various Mergers & Acquisitions that occurred within my funds, to forecast the future performance and valuations of the fund
* Used Excel to identify trends and build discounted cash flow models and charts for the various types of funds that were tracked for clients
* Developed quantitative trend analysis reports using SQL for my clients, which allowed for the analysis of political and economic risk in the funds that we tracked, as well as the performance of these funds
* Consulted with my clients on their investments
* Worked as a Quality Checker in the department, overseeing the work of others to ensure that it was accurate before being put into our reports
* Selected to be a member of a five person Fund Audit team, where I created Audit Support Packages for our clients

**EDUCATION**

**Flatiron School,** New York, NY 08/2020

Immersive Data Science Bootcamp program

**Chartered Financial Analyst** 06/2012

Passed Level 1 of CFA Exam

**James Madison University**, Harrisonburg, VA 05/2011

Bachelor of Business Administration (BBA), Finance and Computer Information Systems

Cum Laude, GPA 3.65