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EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Master of Statistical Practice, Department of STATISTICS AND DATA SCIENCE (Expected May 2018)
Fall Coursework: Applied Linear Models Statistical Computing Epidemiology
Perspectives in Data Science Professional Skills for Statisticians

Bachelor of Science in MATHEMATICAL SCIENCES (May 2016)
Concentration in OPERATIONS RESEARCH AND STATISTICS, GPA: 3.3
Honors: Dean's List - Fall 2014, Spring 2015 and Spring 2016 Awards: 3rd place Tartan Data Science Cup 2016

EXPERIENCE

Charles River Development, Burlington, MA

Associate Consultant, Risk Management (Software Implementation) (July 2016 - August 2017)
Developed portfolio risk management tools and updated risk metrics for Charles River's Investment Management Solution (IMS). Integrated global equity and fixed income factor models into software's portfolio management tool. Created reports to view risk decomposition for accounts within the IMS. Designed an interface to a portfolio optimizer. Consulted clients on trading workflows, portfolio compliance and general backend issues in the IMS. Earned six certifications for the IMS.

Direct Energy, Woodbridge, NJ

Trading Intern (Summer 2015)
Developed an Excel tool (Visual Basic) that automated workflows for energy traders including:

- Uploading bids to the Independent System Operator in the day ahead power market
- Calculating the prices to upload based on updated fuel data
- Generating a true cost analysis report which was then sent automatically via email to a distribution list for real time and day ahead power traders

Submitted bids in the day ahead power market for energy and ancillary services. Created profit and loss statements for company controlled power plants. Used weather data to create a heat rate curve, which evaluated power plant efficiency.

Riverside Research, Chantilly, VA

Software Engineering Intern (Summer 2014)
Used the ASP.NET Model-View-Controller paradigm to build a web application that allowed users to determine the optimal satellites to collect data from a given location in a specified time interval.

CURRENT PROJECT

Algorithmic Trading using Reinforcement Learning

Designed and developed a Python program (*zipline*, *keras*) to build stock portfolios using reinforcement learning. Daily equity data is filtered and fed into the algorithm which uses a neural network with convolutional, dense and recurrent layers to evaluate whether to be long, short or neutral on a security. The algorithm executes the trades in the *zipline* backtester and updates the model based on each day's performance.

COMPUTER SKILLS

Data Science & Machine Learning

| Python (NumPy, Pandas, Keras, Theano, scikit-learn), R, SQL, C++

Software Development & Programming Languages

| C, C#, Swift, Visual Basic, Java, HTML, Javascript, CSS, SML, Octave, L^AT_EX

Programs

| Bash, git, XCode, Visual Studio, Sublime, Eclipse, Matlab, Kettle, SAS, Hadoop, Spark, Microsoft Office Suite

LEADERSHIP

Alpha Epsilon Pi

| *President* (Fall 2014 - Fall 2015), *Vice President* (Fall 2013 - Fall 2014)
Chair of Executive Board, supervised all fraternity events and operations.

INTERESTS

Sports & Music

| Enjoys basketball and tennis.
Played drums and guitar in a rock band. Performed at Walk Now for Autism at Jones Beach.