Matthew O'Neill

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LinkedIn | GitHub

Education

University of Massachusetts Amherst

Master of Science in Computer Science (GPA: 4.0 / 4.0*)* Expected Graduation: *December 2023*
Bachelor of Science in Mathematics (GPA: 3.8 / 4.0) *September 2021*

- Relevant Coursework: Machine Learning, Data Structures and Algorithms, Probability and Statistics, Linear Models and Regression Analysis
- Extra Curricular Activities: Greater Boston Food Bank Volunteer, Chess Club
- Technical Skills: Java, Python, R, SQL, Git, NumPy, SciKit, Microsoft Office

Work Experience

TomTom Lebanon, NH
Software Engineering Intern *January 2022 - Present*

- Currently assigned to a proof of concept project where Tweets containing traffic related keywords and tags will be pulled from Twitter's streaming API using an AWS EC2 instance and stored in a Postgres database to potentially be used to make updates to TomTom's map in a streamlined and efficient manner.
- Assigned to develop a Python tool which developers can use to automatically store data about their python scripts, such as script name, version, and user name, into a Postgres database.

John Hancock Financial Boston, MA
Actuarial Science Intern *September 2020 - December 2020*

- Analyzed claims gain/loss for fixed annuities, further breaking down quarter-end results and contributed to source of earnings explanations.
- Created supplemental exhibits for annual basis change reporting, thoroughly summarized key impacts to be sent to various internal stakeholders.
- Assessed capital requirements on group pension sub-block, quantified interest rate risk and analyzed insurance risk across a multitude of scenarios.
- Analyzed John Hancock products, as well as similar products throughout the industry, through cost/benefit analysis, target market research, and implementation viability to create a proof of concept for a child-care insurance rider that could be streamlined into existing products with minimal risk.

Chipotle Mexican Restaurant, Hingham, MA
Cashier *May 2019 - August 2019*

- Completed transactions in a timely fashion while providing excellent customer service and maintaining a productive workflow.

Projects

HackUMass IX: Pathways(Python) *November 2021*

- Created a website using Django which asks students to input data, such as GPA, work experience, and which companies they applied to, into our API and builds a graph of all students who applied to a given company to give an idea of how likely a student is to receive a job offer.

Blackjack Game with Strategy Assistance(Python) *August 2021*

- Blackjack game where the user plays against the computer using casino rules. Program prints recommendations for decisions to the user. The program counts cards for the user and evaluates hands based on "by the book" strategy to come up with optimal decisions and betsizes. This game can be played endlessly and total win/loss is tracked.

Linear Regression Analysis of College Basketball Efficiency Ratings(R) - *(GitHub Link)* *May 2021*

- Pulled data from 365 Division 1 college basketball teams over a five year period and created a linear regression model with offensive and defensive efficiency ratings as predictor variables and wins as the response variable. Conducted F and T-tests and concluded that there was a linear association between each predictor variable and the response. Proportion of variability was measured to compare each covariate's effect on the response and interaction effects were tested for but were not needed.