Dennis Silva, Jr.

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OBJECTIVE

Intern position in data science, data analytics, or machine learning

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA
Masters of Science, **Data Science**, GPA 3.75/4.0, Expected December 2017
Bachelor of Science, **Mathematical Sciences**, GPA 3.7/4.0, May 2016
Minor in Computer Science

TECHNICAL SKILLS

Applications: MongoDB, Hadoop, SAS, SQLite, LaTeX, Microsoft Excel
Programming Languages: Python (scikit-learn, pandas, numpy, scipy), R, MATLAB, JavaScript
Machine Learning: feature engineering, regression, classification, clustering, association rules
Mathematical Methods: linear algebra, bagging, hypothesis testing, confidence interval estimation, principle component analysis, dimension reduction, Bayesian statistics, time series, optimization

EXPERIENCE

Biomedical Informatics Intern, University of Massachusetts Medical School – May-September 2016

- Assisted in the development of natural language processing and machine learning tools in Python for the detection of Twitter users with moderate-to-high risk of suicidal behaviors.
- Extracted suicidal related tweets using Twitter's Streaming API for real time analysis and Twitter's REST API for complex queries over a three month period.
- Utilized the NoSQL database program MongoDB to efficiently store, query, and modify several million collected tweets stored in JSON format.

Major Qualifying Project (MQP), WPI – September 2015 - March 2016

- Developed a movie recommendation and predictive rating system in MATLAB using user-based collaborative filtering and item-based content filtering techniques.
- Illustrated project results as well as basic machine learning terminology, practices and applications to both technical and non-technical audiences.

Bioinformatics Intern, University of North Carolina at Greensboro – June-August 2015

- Created a reinforcement learning algorithm in Python for the application of predicting the movements of competing animals based on probabilities of resource gain and resource loss.
- Parallelized algorithm for use on the university's High Performance Computing Linux cluster in a distributive fashion.
- Published two research papers in 'Discrete Applied Mathematics' and 'The Journal of Theoretical Biology.'

ACTIVITIES

Alpha Phi Omega (APO), Service Fraternity, WPI, November 2013 – Present
Habitat for Humanity Volunteer, Worcester, MA, October 2012 – December 2016