Dennis Silva, Jr.

19 Maritime Drive; Wareham, MA 02571
(508) 728 – 8550; dssilva@wpi.edu
LinkedIn: linkedin.com/in/dennisjunior111
Personal Website: dennisjunior111.github.io

OBJECTIVE:
Obtain a position as a full-time Data Scientist

EDUCATION:
Worcester Polytechnic Institute (WPI), Worcester, MA
Master of Science, **Data Science**, GPA 3.85/4.0, Expected December 2017
Bachelor of Science, **Mathematical Sciences**, Minor in Computer Science, GPA 3.7/4.0, May 2016

TECHNICAL SKILLS:
Applications: AWS, IBM Watson, Hadoop, Spark, MySQL, Linux, HPC Clusters, Tableau, cloud-computing
Programming Languages: MATLAB [5+ years], Python [4+ years], R [4+ years], JavaScript [2+ years], Java [1+ year]
Machine Learning: feature engineering, regression, classification, clustering, computer vision, ANN, deep learning
Mathematical Concepts: Bayesian statistics, dimension reduction, time series, optimization, linear algebra

EXPERIENCE:
Data Science Intern, Redhorse Corporation, Arlington, VA – June - December 2017
- Developed back-end artificial intelligence software under an Agile/SCRUM methodology for both the company's proprietary Talent Management System as well as Department of Defense related projects hosted on AWS.
- Utilized Facebook's AI Research (FAIR) team's open-sourced fastText word embedding to conduct NLP and transfer learning over a corpus of resumes, project descriptions, and Requests for Information (RFIs).

Biomedical Informatics Intern, Yale School of Medicine, New Haven, CT – 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.

Bioinformatics Intern, University of North Carolina at Greensboro, Greensboro, NC – 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*.

PROJECTS:
Knowledge Discovery and Data Mining (KDD) Cup 2017, Online – January - May 2016
- Competed against over 3000 teams from around the world in phase-one of the *Highway Tollgates Traffic Flow Prediction* competition hosted on the Alibaba Cloud platform.
- Predicted the traffic volume of vehicles passing through a series of highway tollgates within arbitrary 20-minute intervals by analyzing four months of noisy real-world time series data.
- Investigated several white and black box machine learning algorithms including Linear Regression, Random Forest, SVM, and ANN to minimize the evaluation metric of Mean Absolute Percentage Error (MAPE).

Major Qualifying Project, Worcester Polytechnic Institute, Worcester, MA – September 2015 - March 2016
- Developed a movie recommendation and predictive rating system from scratch 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.