**Dennis Silva, Jr.**19 Maritime Drive; Wareham, MA 02571  
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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