Nelson Abdiel Colón Vargas, Ph.D. (Nel Abdiel)

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EDUCATION

George Washington University, Washington, D.C.

M.B.A. in Consulting (Online) In Progress

The Data Incubator, Washington, D.C.

Certificate in Data Science 2016

• Selected among the less than 4% of +1900 applicants.

University of Iowa, Iowa City, Iowa

Ph.D. in Mathematics 2016 M.Sc. in Mathematics 2014

University of Northern Iowa, Cedar Falls, Iowa

M.A. in Mathematics 2010

University of Puerto Rico, Rio Piedras Campus, San Juan, Puerto Rico

B.Sc. in Mathematics 2009

EXPERIENCE

Soteria - Security Consulting & Data Analytics, Charleston, S.C.

Data Scientist - Contract Jun 2016–Present

• Developed predictive models to automate the detection of cyber threats like Phishing, Typosquatting and Network Intrusion with the used of SKLearn, Pandas and NumPy in Python.

- Built multiple dashboards for internal use using Python, Flask, Django, HTML5/CSS3, Bootstrap, Bokeh and D3.js for analysts to interact with data from OSSEC and other services in a more visual matter.
- Created software for feature extraction from unstructured data from +30000 websites a day. Both structured and unstructured data is then automatically saved into a Cassandra database.
- Devised Python pipeline to automate the classification of +30000 websites received per day.
- Was involved in the decision making and engineering of technologies and infrastructure for ETL.
- Contributed to the writing of the technical section of an NSF SBIR/STTR grant proposal.
- Installed and configured OSSEC on servers, and designed and implemented new OSSEC rules to improve efficiency in data collection.
- Developed probabilistic model to predict the outcome of ping pong matches in the office.

K2 Data Science, Remote

Data Science Curriculum Advisor - Contract (Part-time)

Dec 2016–Present

- Designed and developed assignments with detailed solutions for the the following subjects: Data Cleaning and Preprocessing, Exploratory Data Analysis, Regression, Classification, Clustering, Natural Language Processing and Time Series.
- Helped plan and develop comprehensive learning material to aid students with assignments and to prepare them for their future roles as Data Scientists.

The Data Incubator, Washington, D.C.

Data Scientist - Fellow

Jan 2016-Mar 2016

Selected Projects:

- Capstone: http://iokilos.herokuapp.com. Scraped over a thousand pages from various websites to collect data. Conducted a thorough analysis of the distribution of world records in Weightlifting. Developed an app for strength athletes' training cycles.
- Conducted open-ended analysis of user behaviors on +9GB of StackOverFlow data using Scala and Spark.

SKILLS

- Stack: Python, PostgreSQL, Spark, Hadoop, D3.js, Theano, Jupyter, Zeppelin, Ambari, Git, LATEX.
- Knowledge of: Machine Learning, Data Visualization, Object-Oriented Programming, Neural Nets.
- Tools: Pandas, NumPy/SciPy, Scikit-Learn/XGBoost, Keras, PyMC, Bokeh, Flask, HTML5/CSS3.
- Familiar with: MapReduce, Cassandra, HAWQ, SQLite3, CockroachDB, MongoDB, R, C++, OSSEC.
- Dominance of: English and Spanish.