Nelson Abdiel Colón Vargas (Nel Abdiel) Data Scientist

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EDUCATION

University of Iowa, Iowa City, Iowa
Ph.D of Pure Mathematics (In Progress) — May 2016
Master of Science in Mathematics — Dec 2014

University of Northern Iowa, Cedar Falls, Iowa — Jul 2010
Master of Arts in Mathematics

University of Puerto Rico, Rio Piedras Campus, San Juan, Puerto Rico — May 2009
Bachelor in Mathematics

SKILLS

- Strong Python and SQL Programmer.
- Experience with: Scikit-Learn, Natural Language Processing, Pandas, NumPy/SciPy, BeautifulSoup, Bokeh, Seaborn, Flask, Heroku, Version Control, Probability, Statistics, Twitter API, LateX.
- Basic Knowledge of: R, Spark, Hadoop, MapReduce, C++, Front End Development.
- Dominance of English and Spanish.

EXPERIENCE

The Data Incubator, Washington, D.C.
Fellow — Jan 2016–Feb 2016
Certificate in Data Science
Capstone Project: http://iokilos.herokuapp.com

- Analyzed the distribution of world records in Olympic Weightlifting using the Naive Bayes Classifier from Scikit-Learn. Also developed an app for strength athletes' training cycles using Clustering Algorithms. The data was scraped from over a thousand pages from various websites.

Other projects:

- Conducted open-ended analysis of user behaviors on 9+gb of StackOverFlow XML data (AWS s3) using Scala, and Spark.
- Analyzed 10+gb of XML data from Simple English and Thai Wikipedia (AWS s3), with MapReduce.
- Web scraping and social graph analysis of 100+k photo captions from NYC Social website using Python (Networkx, BeautifulSoup, and Pandas).
- Developed Time Series model for weather data (AWS s3) to predict temperature.
- Developed different pipelines for predicting star reviews for businesses based on small Yelps academic dataset with Python (Scikit-Learn).
- Analyzed New York food inspection reports for the last 4 years, approximately 530k records, using advanced SQL and Python (Pandas).
- Performed Natural Language Processing analysis to Yelp's academic dataset, 325+mb of json data, with Python (NLTK and Scikit-Learn).

Topology Research, University of Iowa
Graduate Research Student — Aug 2012 – Dec 2015
Professor Charles Frohman
Developed a method for reducing certain exponential time algorithms in Quantum Topology to linear time.

Biostatistics And Bioinformatics Center, University of Puerto Rico, Rio Piedras Campus
Undergraduate Research Student — Aug 2008 – Jul 2009
Professor Luis Raul Pericchi
Modeled and Analyzed more than 500mb of data in R, from breast cancer studies in search of biomarkers.

SELECTED PUBLICATIONS & AWARDS

The Localized Skein Algebra Is Frobenius
N. Abdiel and C. Frohman, in *Journal of Knot Theory And Its Ramifications* — Jan 2016.

Ballard-Seashore Fellowship, University of Iowa. — Jan 2016 – May 2016
Awarded for outstanding contributions to the field of Topological Quantum Field Theory.