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.