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EDUCATION

University of Iowa, Iowa City, Iowa
Ph.D of Pure Mathematics (In Progress)
Master of Science in Mathematics

May 2016
Dec 2014

University of Northern Iowa, Cedar Falls, Iowa
Master of Arts in Mathematics

Jul 2010

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

May 2009

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 more than 100,000 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 Yelp academic dataset with Python (Scikit-Learn).
- Analyzed New York food inspection reports for the last 4 years, approximately 530,000 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.