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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  
Master of Arts in Mathematics      Jul 2010

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

**SKILLS**      • **Expertise:** Statistical Analysis, Data Visualization.  
• **Proficient with:** Python, SQL, HTML5/CSS3, Bootstrap3,  $\LaTeX$ .  
• **Experience with:** Machine Learning, Natural Language Processing, Web Scraping, JSON.  
• **Tools:** Pandas, NumPy/SciPy, D3, Scikit-Learn, NLTK, Bokeh, Flask, Heroku, Github.  
• **APIs:** Twitter, Spotify, BandsInTown, Stubby, Eventbrite, Quandl.  
• **Familiar with:** R, Spark, Scala, Hadoop, MapReduce, C++, JavaScript.  
• **Dominance of:** English and Spanish.

**EXPERIENCE**      **The Data Incubator**, Washington, D.C.  
Fellow. *Selected among the less than 4% of +1900 applicants.*      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.

**Selected Projects:**

- **Big data related:** Conducted open-ended analysis of user behaviors on +9GB of StackOverFlow XML data using Scala, and Spark. Analyzed +10GB of XML data from Simple English and Thai Wikipedia with MapReduce.
- Web scraping and social graph analysis of more than 100,000 photo captions from NYC Social website using Python (BeautifulSoup, Pandas and Networkx).
- Developed pipelines with Python (Scikit-Learn) for predicting star reviews for businesses based on Yelp's academic dataset. Performed Natural Language Processing analysis on Yelp's academic dataset, +325MB of json data, with Python (NLTK and Scikit-Learn).
- Analyzed New York food inspection reports for the last 4 years, approximately 530,000 records, using advanced SQL and Python (Pandas).

**Topology Research**, University of Iowa  
Graduate Research Student      Aug 2012 – Dec 2015  
Professor Charles Frohman

- Developed a method for reducing the exponential time of Skein computations in Quantum Topology to linear.

**University of Puerto Rico, University of Northern Iowa, Florida State University, University of Iowa.**

Instructor and/or Teaching Assistant      Jun 2004 – Dec 2015  
• Taught and/or TAed for a wide range of college courses, from Precalculus to graduate courses in Topology. Been in charge of classes with more than a hundred students.

**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.