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EDUCATION	<p>University of Iowa, Iowa City, Iowa Ph.D of Pure Mathematics (In Progress) May 2016 Master of Science in Mathematics Dec 2014</p> <p>University of Northern Iowa, Cedar Falls, Iowa Master of Arts in Mathematics Jul 2010</p> <p>University of Puerto Rico, Rio Piedras Campus, San Juan, Puerto Rico Bachelor in Mathematics May 2009</p>
SKILLS	<ul style="list-style-type: none"> • 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, Stubhub, Eventbrite, Quandl. • Familiar with: R, Spark, Scala, Hadoop, MapReduce, C++, JavaScript. • Dominance of: English and Spanish.
EXPERIENCE	<p>The Data Incubator, Washington, D.C. Fellow. <i>Selected among the less than 4% of +1900 applicants.</i> Jan 2016–Feb 2016 Certificate in Data Science Capstone Project: http://iokilos.herokuapp.com</p> <ul style="list-style-type: none"> • 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. <p>Selected Projects:</p> <ul style="list-style-type: none"> • 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). <p>Topology Research, University of Iowa Graduate Research Student Aug 2012 – Dec 2015 Professor Charles Frohman</p> <ul style="list-style-type: none"> • Developed a method for reducing the exponential time of Skein computations in Quantum Topology to linear. <p>University of Puerto Rico, University of Northern Iowa, Florida State University, University of Iowa. Instructor and/or Teaching Assistant Jun 2004 – Dec 2015</p> <ul style="list-style-type: none"> • 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	<p>The Localized Skein Algebra Is Frobenius N. Abdiel and C. Frohman, in <i>Journal of Knot Theory And Its Ramifications</i> Jan 2016.</p> <p>Ballard-Seashore Fellowship, University of Iowa. Jan 2016 – May 2016 Awarded for outstanding contributions to the field of Topological Quantum Field Theory.</p>