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EDUCATION **University of Iowa**, Iowa City, Iowa
Ph.D. in Mathematics May 2016
M.S. in Mathematics Dec 2014

University of Northern Iowa, Cedar Falls, Iowa
M.A. in Mathematics Jul 2010

University of Puerto Rico, Rio Piedras Campus, San Juan, Puerto Rico
B.S. in Mathematics May 2009

CERTIFICATE **The Data Incubator**, Washington, D.C.
Certificate in Data Science Feb 2016
Fellow. *Selected among the less than 4% of +1900 applicants.*

SKILLS • **Expertise:** Mathematical/Statistical Analysis.
• **Proficient with:** Python, SQL, HTML5/CSS3, L^AT_EX.
• **Experience with:** Machine Learning, Natural Language Processing, Web Scraping.
• **Familiar with:** R, Spark, Scala, Hadoop, MapReduce, C++, JavaScript, Bootstrap3, MongoDB.
• **Dominance of:** English and Spanish.

EXPERIENCE **Soteria - Security Consulting & Data Analytics**, Charleston, S.C.
Data Science Intern Jun 2016–Present
• Created software to extract and classify data features from unstructured data.

The Data Incubator, Washington, D.C.
Fellow Jan 2016–Feb 2016
Capstone Project: <http://iokilos.herokuapp.com>

- Scraped over a thousand pages from various websites to collect data. Analyzed the distribution of world records in Olympic Weightlifting using the Naive Bayes Classifier. Developed an app for strength athletes' training cycles using Clustering Algorithms.

Selected Projects:

- Conducted open-ended analysis of user behaviors on +9GB of StackOverFlow data using Scala and Spark.
- Performed Natural Language Processing analysis on Yelp's academic dataset, +325MB of json data.

Topology Research, University of Iowa.
Researcher, *Ph.D. thesis* Aug 2012 – Dec 2015
• Optimized Skein computation algorithms, reducing them from exponential to linear time.

Minority Recruitment and Mentoring, University of Iowa.
Mentor and Recruiter Jan 2012 – Dec 2015
• Assisted in both, the recruitment and mentoring of more than thirty students into the graduate programs and REUs in Math and Biostatistics. Also helped trained more than twenty faculty members to become successful mentors.

Mathematics Department, University of Iowa.
Instructor and/or Teaching Assistant Aug 2011 – 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** Jan 2016
N. Abdiel and C. Frohman, in *Journal of Knot Theory And Its Ramifications*

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