

# Career Center

## Math PhD to Industry Resume Example

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### SUMMARY

Passionate and innovative research mathematician with a background in machine learning, data, and analytics. Expert in extracting and communicating business insights and technical ideas to a nontechnical or executive audience. Seeking a position in data science/analytics at the interface of a collaborative scientific/technical group and an executive/management team.

### RELEVANT SKILLS

- Strong quantitative and problem-solving skills, including in predictive analytics
- Exceptional interpersonal skills and ability to interact with, build, and lead groups
- Strong presentation skills, including simplifying and clearly communicating complex ideas
- Demonstrated ability to build bridges between technical, analytical, operational, and business units

### PROFESSIONAL EXPERIENCE

- Duke University, Department of Mathematics**, Graduate Researcher 2012 - present
- Taught 2 calculus classes to over 75 undergraduates, preparing all lecture notes and grading tests
  - Presented independent research at Bates, Yale, and the University of North Carolina, adapting to different populations (general population, undergraduates, graduates, and researchers)
  - Work closely principal investigator to understand operational needs and considerations
  - Manage the development and responsibilities of 4 undergraduate research assistants
  - Develop and encourage a culture of data-driven decision-making in all aspects of lab interactions
- Duke University Advanced Professional Degree Consulting Club**, Member, Consultant 2017 - present
- Collaborate with a cross-disciplinary team of 4 graduate students to address clients' needs
  - Provide data and analytical support to micro-consulting team, focusing on technical solutions
- Financial Partners, L.P.**, Research Staff Summer 2015
- Developed and improved proprietary predictive models for shortterm systematic trading
  - Simulated and analyzed risk models to effectively manage portfolio and instrument risk
  - Mined and cleaned large data sets to further the fund's expansion into new markets
  - Engineered production software that interfaced with exchanges worldwide
- Department of Defense - Center for Communications Research**, Research Staff 2011 - 2012
- Consulting member of staff of 12 research mathematicians
  - Developed new algorithms and production software for solving cryptologic problems

### EDUCATION

- Doctor of Philosophy in Mathematics, Duke University 2018
  - Thesis: Polynomial Decomposition over Rings
- Bachelor of Science in Mathematics and Computer Science, New York University 2011

### SELECTED HONORS AND AWARDS

- National Defense Graduate Science and Engineering Fellowship 2012 - 2016
  - One of 13 graduate mathematics fellowships awarded by the Dept. of Defense in 2012
- Top Graduate Student Instructor Award, Duke University 2014
- Harold Award, New York University 2011
  - For the senior with the outstanding record of scholarly achievement and leadership
- Barry Goldwater National Math and Science Scholarship 2007

