

# SHANSHAN DING

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## EXPERIENCE

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**Data Scientist II, Gilt Groupe, New York, NY**

**August 2015 – Present**

**Data Scientist, YP Mobile Labs, New York, NY**

**June 2014 – August 2015**

- Automated pacing control for mobile advertisement campaigns that run on the demand-side platform (DSP).
- Generated lift in campaign performances by improving conversion rate predictions based on hierarchical models.
- Implemented anomaly detection to monitor for temporal outliers that may suggest disruptions in the RTB system.
- Analyzed quality of mobile location data obtained from ad exchanges and collaborated with marketing team to communicate findings in white papers.
- Correlated mobility time series derived from location data with economic indices and current events.
- Ad hoc projects in codebase updates, spam investigations, and reporting and analytics.

**Data Scientist, Tagged, San Francisco, CA**

**February – June 2014**

- Performed user segmentation analysis using dimension reduction and clustering techniques.
- Helped build an unwanted guest detection model for the in-house social discovery recommender system Meet Me.
- Routinely ran complex queries in PostgreSQL databases to mine behavioral patterns of 300 million users.
- Conducted A/B tests to evaluate new recommender algorithms.

**Fellow, Insight Data Science, Mountain View, CA**

**August – October 2013**

- Created python-based app to optimize fantasy baseball lineups by predicting outcomes of batter-pitcher matchups.
- Built front end with Twitter Bootstrap and JavaScript, and used Flask to deploy app to AWS.

**Research Intern, Columbia Business School, New York, NY**

**June – July 2013**

- Extracted patterns in player development, styles of play, and in-game strategies from soccer play-by-play data.
- Debugged and streamlined existing code in Stata, R, and Python.

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## EDUCATION

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**University of Pennsylvania**

**2008 – 2014**

Ph.D. in Mathematics

- Concentration: Probability and Combinatorics, specifically Markov chain convergence on non-commutative spaces
- Honors: Penn Presidential Fellowship (2009), Award of Excellence in Teaching (2012)

**Columbia University**

**2004 – 2008**

B.A. in Mathematics and Economics, *cum laude*

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## OTHER ACTIVITIES

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**Adjunct Instructor, New York University Center for Data Science**

**January – April 2015**

- Gave a series of guest lectures for DS-GA 1003 (Machine Learning and Computational Statistics) on mathematical foundations of machine learning.

**Teaching Fellow, University of Pennsylvania**

**2009 – 2013**

- Developed pre-freshman boot camp for incoming undergrads of disadvantaged backgrounds; additionally, taught multivariable calculus as solo instructor and served as teaching assistant for eight other math classes.
- Led annual teaching training program for new graduate students and postdocs (2011, 2012).

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## SKILLS & INTERESTS

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- Technical skills and tools: R, Python, SQL, Hadoop streaming, Spark, AWK, HTML, JavaScript, AWS, GitHub
- Natural languages: Chinese (fluent), French (intermediate), German (basic)
- Interests: travel, hiking, photography, piano, choir