

# RACHEL SHUYAN WANG

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## EDUCATION

**Columbia University**, Graduate School of Arts and Sciences New York, NY  
M.S. in Quantitative Methods in the Social Science, **Data Science** Focus Expected February 2015  
*Relevant Coursework:* Statistical Modeling and Data Analysis, Statistical Machine Learning, Data Visualization, Social Network Analysis, Applied Data Mining, Statistical Inference, Quantitative Methods Seminar  
**Peking University (Top 1 in China)**, College of Engineering, **Honor Graduate** Beijing, China  
B.S. in **Mechanical Engineering**, GPA 3.7/4.0 May 2013  
Dual Degree B.A. in **Economics**, GPA 3.65/4.0 May 2013  
**University of California, Berkeley**, Exchange Student, GPA 3.9/4.0 Berkeley, CA, June 2011

## PROFESSIONAL EXPERIENCE

**AOL Strategy and Modeling** New York, NY  
*Data Scientist in Sales Strategy and Operations* May 2014 - August 2014

- Initiated an independent research project on sales opportunities to reveal key performance factors that turn RFP opportunities to deals won, and used Python and R to predict client's future need and sales goals with data of more than 300,000 cases (over 10G) from Salesforce.com and Kantar on a high level of mathematical aptitude with unique insight
- Applied quantitative analysis to formulate the strategy of AOL's advertisement sales business, leveraging and integrating resources like network, Ad.com, Adap.tv, Tech Crunch, and Huffington Post to achieve its growth aspirations
- Took a lead role in developing statistical models, publishing analysis reports and building internal automatic tools using R, Python, SQL, and JavaScript to help sales monitor patterns and trending of their clients' spending habits

**CICC U.S. Securities** New York, NY  
*Quantitative Equity Research Analyst* November 2013 - March 2014

- Analyzed 1G+ data from internal database and Bloomberg to find crucial metrics and build revenue model of Macy's new strategy of online-offline hybrid business in transformation and created KPI dashboard to visualize the results
- Co-authored three major reports: *Online Business Saved Macy's* (a review of 2013 retail business in the United States), *Innovation Embraces New Age: Starting with Google's Robot Army Acquisitions* (bullish outlook for robotics industry home and abroad) and *How Internet TV Market Will Change the World* (a review of Netflix's stock soar in 2013)

**UBS Securities** Beijing, China  
*Analyst* August 2012 - October 2012

- Collaborated in a quantitative Hong Kong stock research project on national FMCG market for a top hedge fund
- Implemented over 300 cold calls targeting sales managers and HR managers with a success rate of over 70%

## RELEVANT EXPERIENCE

**Master's Thesis: Predicting Yelp Review's Popularity by Extracting Subtopics** June 2014 – January 2015

- Mined *Yelp Dataset Challenge* data to predict if a Yelp review is potentially popular (with human annotators' upvotes) and create a automatic system to promote good reviews and encourage new users' engagement by applying LDA (Latent Dirichlet Allocation), RTM (Relational Topic Models), other machine learning methods and time series model

**Twitter, Facebook and Media Release Sentiment Analysis Project** January 2014 – May 2014

- Finished the project with over 1,000 lines of R code to clean, analyze, and visualize more than 2G of json text data, finding trends of people's political sentiment and its interaction with media release using topic modeling methods
- Applied d3.js, Gephi, Manyeyes, Google maps, word cloud, heat map to implement varied data visualization

## LEADERSHIP AND HONORS

**Columbia University**, **Social Chair** of Graduate Student Advisory Council New York, NY

- Organized social events including ski trips, boat cruise, wine tasting, poker nights and monthly mixers covering 20,000 graduate students to encourage communication of Columbia's domestic and international graduate students

**Stanford University**, Science and Technology Leadership Association Forum Palo Alto, CA

- International Technology Innovation Design Champion in Sustainable Housing Model Contest August 2011

## SKILLS AND INTERESTS

**Programming:** R, Python, C, SAS, Stata, SQL, HTML, Bloomberg, D3 **Language:** English and Mandarin  
**Interests:** Ultimate Frisbee, Fingerstyle Guitar, Science Fiction, Squash, AC Milan Fan, Texas Hold'em