

Mohammad Ramezanali, Ph.D.

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Professional Experience

- 9/2017 – present** **Senior Data Scientist** | CubeSmart | Pennsylvania
- Lead on development and delivery of 1st in-house demand forecast and dynamic pricing system to maximize long-term revenue estimated an average lift of 9.2%.
 - Automated the reporting dashboard and built a machine-learning tool to quality check input data and debug model performances.
 - Coached up to 3 engineers and data scientists including temporary staff.
 - Initiated training classes on R, statistics and machine learning.
- 5/2016 – 8/2017** **Advisor & Data Science Consultant** | Captivation Theory Inc. | New Jersey
- Advised the company to produce engaging, impactful content that drives results.
 - Designed and implemented the 1st version of the company's product using NLP.
 - Conducted A/B testing to optimize bottlenecks in the content production.
- 9/2015 – 9/2016** **Visiting Scientist** | Flatiron Institute, Simons Foundation | New York
- Discovered a novel approach to study high-dimensional statistics that allows analyzing broader set of problems in data science and modern statistics.
 - Invited to present the results at several leading universities and institutes.
- 9/2015 – 5/2017** **Postdoctoral Researcher** | Rutgers University | New Jersey
- Introduced new technique to address the issues of variable selection for large-scale penalized regression.
 - Contributed to Machine Learning communities by publishing several scientific papers and served as a referee for renowned conferences. Link: <http://bit.ly/2rWW8Fh>

Skills

- 10+ plus years of experience in scientific research, data modeling and 3+ years of experience in software development.
- Strong background in machine learning, natural language processing, Bayesian inference, and neural networks.
- Strong mathematical fundamentals, including linear algebra, probability and statistics, stochastic processes, and optimization.
- Strong programming skills, including Python, R, Julia, Git, SQL, MATLAB.
- Knowledge of AWS, Microsoft Azure/VSTS, Batch applications, VMs, Docker.
- Team player who can also be independent, and prioritize work.
- Constant learner of new research and technologies with a can-do attitude.

Education

- 9/2009–8/2015** **Ph.D., Physics**, Rutgers University, New Jersey
- Dissertation: Extracting Sparse Signals from High-dimensional Data: A Statistical Mechanics Approach

Selected Publications

1. Ramezanali M, Mitra PP, and Sengupta AM. (2018) "Critical Behavior and Universality Classes for an Algorithmic Phase Transition in Sparse Reconstruction." Submitted to Journal of Statistical Physics (Complexity). arXiv: 1509.08995.
2. Ramezanali M, Mitra PP, and Sengupta AM. (2016) "Mean Field Analysis of Sparse Reconstruction with Correlated Variables." *IEEE Xplore*, doi: 10.1109/EUSIPCO.2016.7760452. (Editors' suggestion)

Awards

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| 2017 | Data Science fellowship at Insight Data Science, New York. |
| 2014 | Contributed to INSPIRE Track 1 award: Zero-One Laws at the Interface Between Physics, Engineering and Biology. |
| 2008 | Ranked 2 nd in the national physics Olympiad competition, Iran.
Ranked 3 rd place in the nationwide graduate entrance exam, Iran. |