

# Rikin Mathur

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## EDUCATION

**Columbia University– Fu Foundation School of Engr. and Applied Science** New York, NY  
Master of Science, Electrical Engineering Sept 2015-Dec 2016  
**University of Pittsburgh – Swanson School of Engineering** Pittsburgh, PA  
Bachelor of Science, Electrical and Computer Engineering | Minor, Economics August 2010-May 2015  
GPA: 3.5 (Graduation with Honors)

## SKILLS

**Software and Programming:** C, Python (Numpy, Scipy, Pandas, SciKit, NLTK), Java, R, MATLAB, Apache Hadoop (MapReduce), Linux, Excel  
**Machine Learning:** Regression, Clustering, Classification, Feature Selection  
**Statistics:** Hypothesis testing and confidence intervals, Regression models  
**Coursework:** Advanced and Intermediate Big Data, Data to Solutions, Machine Learning, Engineering Statistics and Probability, Programming in Java, Linear Algebra, Differential Equations

## PROFESSIONAL EXPERIENCE AND PROJECTS

**Tracking Profanity in Online Discussions** New York, NY  
*Graduate Researcher* Nov 2016- Dec 2016

- Scraped and Collected Data from APIs of online news sites for detecting profanity and insults in forums
- Programmed in Python to match profanity using NLP tools and analyzed most predictable features of profanity using Support Vector Machines.
- Correctly verified hypothesis that organized forums and Facebook contain less profanity when compared to minimally regulated news site forums such as New York Times and Wall Street Journal

**Analog Electronics Lab** New York, NY  
*Graduate Researcher* Nov 2016- Dec 2016

- Extensively programmed in C to sample sound for delay calculations from microphones
- Experimented with various Machine Learning Algorithms for predicting collected data
- Used K-NN algorithm to correctly calculate angle of arrival from sound source

**NetApp Inc.** Pittsburgh, PA  
*Platform Hardware and Engineering Intern* May 2014-August 2015

- Extensively programmed in Python to configure firmware, run maintenance tests, and detect failure
- Developed code and conducted Cloud based data testing for maintenance and worked in depth with Excel to monitor capacity performance for data servers
- Development resulted in 77% power reductions during testing with respect to thresholds

**Bone Osteoporosis Clinical Case Study in Asian Males** Lucknow, India  
*Research Contributor* Jun 2012-Jul 2012

- Received Merit Scholarship to participate in a 10 year-update study on Bone Mass Density measurements and nutritional lifestyle in Indian males
- Collected data on daily eating habits and nutrition from over 100 randomly selected males and used Excel to analyze 100,000 item data set generating analysis used by researchers to highlight factors causing significant bone mass decay in South Asian Males

## AWARDS

**ISF Research Award:** Scholarship to conduct study on Osteoporosis in India  
**Dean's List (2010-2015):** Excellent academic performance during semesters and upon Graduation  
**1<sup>st</sup> Place Deloitte Consulting Case Competition:** Presented a solution for a gaming company regarding long term investments in technology for better profit margins and revenue growth