

# Mridul Kapoor

mridul.kapoor@gmail.com | <https://mridul.github.io> | +1 914 316 3109

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## EDUCATION

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<b>M.S. Computer Science</b>	Columbia University, New York	(expected) December 2017
<b>B.E. Computer Engineering</b>	Thapar University, India	July 2009 – May 2013

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## EXPERIENCE

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**Twitter – Search Relevance / Applied Machine Learning** June 2017 – August 2017  
Software Engineer Intern

- Improved query understanding and query rewriting using better spell correction and query-entity detection across tweet and user search.

**Instamojo** October 2015 – June 2016  
Software Engineer Bangalore, India

- Built Instamojo's Peer-to-Peer Payments system. Responsible for architecture and development, security, and risk compliance for the product. Used python, django-rest-framework, redis, postgresql.
- Contributed to the foundations of Instamojo's microservice architecture. Dockerized the instamojo web-app, and built microservices to be deployed on a Terraform managed Kubernetes cluster on AWS.

**Microsoft – Bing.com and Cortana** July 2013 – October 2015  
Software Engineer - II Hyderabad, India

- Improved query-entity relevance for Bing.com's Entity Search. Built infrastructure, and authored techniques for shipping incrementally better high-precision offline computed query-entity maps for multiple entity segments, across global markets.
- Improved results for trending entities – created pipelines to identify trending entities for a given time window through spiking word-ngrams derived from user queries.

**LinkedIn – SlideShare** January 2012 – July 2012  
Software Engineer Internship Delhi, India

- Implemented and Scaled up a Collaborative Filtering based Recommender System. Briefly worked on a ruby prototype as a proof of concept, and then scaled up later using the Apache Mahout project.
  - Created and deployed web apps for status reporting, and measuring historical site performance metrics.
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## ACADEMIC RESEARCH EXPERIENCE

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**Columbia University** September 2016 – May 2017  
Graduate Student Researcher New York, NY

- Prof. David Blei's Lab:** Built and deployed early versions of a recommender service for academic articles – building upon using user/item exposure as a latent variable to improve collaborative filtering. Improved training times manifold, leveraging partial updates to parameters.
  - Prof. Owen Rambow:** Applied NLP and Machine Learning for contextual entity linking at the History Lab. Trying to overcome challenges in case-less entity extraction (some work at <http://history-lab.org>).
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## HONORS AND ACHIEVEMENTS

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- ACM ICPC Asia Region Finalist**, IIT Kanpur Site for two successive years – 2011 and 2012.
- Awarded the Columbia University CS Department's Course Assistant Fellowship with a tuition waiver for performance as a course assistant.
- Awarded merit scholarship in the form of a full tuition waiver for all four years of undergraduate study.
- Runner Up at the Instamojo Hackathon, 2015 – developed a prototype product metadata predictor.
- Second Runner-up at the SlideShare ProHackday 2011 – built a Google Docs–SlideShare integration.