

# Abhinav Maurya

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RESEARCH INTERESTS Machine Learning, Data Science, Computational Social Science, Big Data, Bayesian Statistics, Deep Learning

EDUCATION **Carnegie Mellon University**, Pittsburgh **Aug 2013 – present**  
*Ph.D. (Information Systems)*

- ◇ **Research Focus:** Development of machine learning methods for solving societal challenges.
- ◇ **Relevant Courses:** Topics in Deep Learning, Neural Networks for NLP, Probabilistic Graphical Models, Convex Optimization, Computer Vision
- ◇ **Teaching Assistant:** Introduction to Machine Learning, Machine Learning for Large Datasets

**IIT Bombay**, Mumbai **Aug 2010 – July 2012**  
*M.Tech. (Computer Science and Engineering)*

- ◇ **Thesis:** Machine Learning Algorithms for Traffic State Classification in WirelessAcrossRoad
- ◇ **Relevant Courses:** Artificial Intelligence, Advanced Machine Learning, Topics in Machine Learning, Advanced Computer Networks, Seminar in Data Center Systems
- ◇ **Teaching Assistant:** Introduction to Machine Learning, Advanced Machine Learning

**University of Mumbai (VJTI)**, Mumbai **Aug 2004 – May 2008**  
*B.Tech. (Computer Science and Engineering)*

- ◇ **Relevant Courses:** Intelligent Systems, Advanced Databases, Distributed Computing

PROFESSIONAL EXPERIENCE **IBM Research**, Almaden **May 2016 – Aug 2016**  
*Research Scientist Intern*

- ◇ **Project:** Bayesian optimization of non-convex metrics for binary classification on imbalanced datasets
- ◇ **Results:** Three patents in progress. Nominated for INFORMS 2016 Service Science cluster best paper award. Winner of IEEE BigData 2016 travel grant sponsored by Robert Bosch GmbH. Journal paper in preparation.

**Microsoft Corporation**, Redmond **Oct 2012 – Aug 2013**  
*Software Development Engineer*

- ◇ **Project:** Microsoft Bing's 2013 UI/UX refresh in the core search and relevance team.
- ◇ **Minor Project:** Executed a pilot project on Bing-Skype click-to-call integration.

RESEARCH PUBLICATIONS

- ◇ Making Personalized Skill Recommendations using Bayesian Member-Job Matching. Abhinav Maurya, Rahul Telang, Sai Sundar. *Invited presentation at INFORMS 2016 Session on Data Analytics and Machine Learning*. Journal paper in preparation.
- ◇ Bayesian Optimization for Predicting Rare Internal Failures in Manufacturing Processes. Abhinav Maurya. *IEEE International Conference on Big Data 2016*. Winner of travel grant awarded by Robert Bosch GmbH.
- ◇ Optimizing Predictive Precision for Actionable Forecasting of Revenue Change from Clients Receiving Periodic Services. Abhinav Maurya, Aly Megahed, Ray Strong, Jeanette Blomberg, Alaa Elwany. *Finalist for INFORMS 2016 Service Science Cluster Best Paper Award*. Three patents pending.

- ◇ ClickToPrice: Incorporating Visual Features of Product Images in Price Prediction. Abhinav Maurya. *INFORMS 2016 Workshop on Data Mining and Decision Analytics (DMDA)*.
- ◇ Contrastive Structured Anomaly Detection for Gaussian Graphical Models. Abhinav Maurya, Mark Cheung. *ICML 2016 Workshop on Anomaly Detection*.
- ◇ Personalized Data-Driven Skill Recommendations and Skill Gap Prediction. Abhinav Maurya, Rahul Telang, Sai Sundar. *Patent pending*.
- ◇ Road-RFSense: A Practical RF-Sensing Based Road Traffic Estimation System for Developing Regions. Rijurekha Sen, Abhinav Maurya, Bhaskaran Raman, Amarjeet Singh, Rupesh Mehta, Ramakrishnan Kalyanaraman. *ACM Transactions on Sensor Networks, 2014*.
- ◇ Kyun Queue: A Sensor Network System to monitor Road Traffic Queues. Rijurekha Sen, Abhinav Maurya, Bhaskaran Raman, Rupesh Mehta, Ramakrishnan Kalyanaraman, Nagamanoj Vankadhara, Swaroop Roy, Prashima Sharma. *ACM Conference on Embedded Networked Sensor Systems, 2012*.

HONOURS AND AWARDS

- ◇ Winner of Yelp's seventh dataset challenge.
- ◇ CMU's Social Innovation Fellowship 2017.
- ◇ Awarded the LinkedIn economic graph challenge grant in 2015.
- ◇ Awarded a travel grant by Robert Bosch GmbH for attending IEEE BigData 2016.
- ◇ Awarded a computing resources grant by Microsoft Azure for Research.
- ◇ Finalist for 2016 INFORMS Service Science Cluster Best Paper Award.
- ◇ Invited presentation at the INFORMS 2016 session on Data Analytics and Machine Learning.
- ◇ All India Rank 46 (99.95 percentile) in Graduate Aptitude Test in Engineering for Computer Science (GATE-CS) 2010.
- ◇ JRD Tata Scholarship for academic excellence awarded in years 2006, 2007, and 2008.
- ◇ Finalist in Eureka'08, a business plan contest organized by IIT Bombay's Entrepreneurship Cell.

SKILL SET

C, C++, Java, Scala, Python, R, Hadoop, Spark