CHIRAG GUPTA

Graduate Fellow, Carnegie Mellon University
chiragg@andrew.cmu.edu — https://aigen.github.io/

RESEARCH INTERESTS

I am interested in studying foundational aspects of machine learning, broadly including topics in optimization and statistics.

EDUCATION

Year	Degree	Institution (Board)	GPA/%
2018 – now	PhD, Machine Learning	Carnegie Mellon University	4.2
2012-2016	B. Tech, Computer Science & Engineering	IIT Kanpur	9.4/10 (distinction)

PAPERS

- **Support Recovery for Orthogonal Matching Pursuit: Upper and Lower bounds**
  Somani, R., **Gupta, C.**, Jain, P., Netrapalli, P.
  Neural Information Processing Systems [NeurIPS '18 Spotlight]
  https://papers.nips.cc/paper/8279-support-recovery-for-orthogonal-matching-pursuit-upper-and-lower-bounds
- **ProtoNN: Compressed and Accurate kNN for Resource-scarce Devices**
  Gupta, C., Suggala, A. S., Goyal, A., Simhadri, H. V., Paranjape, B., Kumar, A., Goyal, S., Udupa, R., Varma, M. & Jain, P.
  International Conference on Machine Learning [ICML '17]
  http://proceedings.mlr.press/v70/gupta17a.html
  (patent filed and pending)

RESEARCH

Orthogonal Matching pursuit for sparse linear regression — link to NeurIPS'18 paper
with Praneeth Netrapalli and Prateek Jain at Microsoft Research, India — *Sep'17 - July'18*

EdgeML: An ML library for machine learning on the Edge — link to repository
with Harsha Vardhan Simhadri at Microsoft Research, India — *Nov'16 - Aug'17*

ProtoNN: Compressed and Accurate kNN for Resource-scarce Devices — link to ICML'17 paper
with Prateek Jain at Microsoft Research, India — *July'16 - Feb'16*

A perceptron algorithm for learning latent variables — Internal technical report
with Purushottam Kar and Vinay Namboodiri, IIT Kanpur — *Jan'15 - Apr'16*

Reduced Set Methods in Kernel Machines using Random Features — Internal technical report
with Bernhard Schölkopf at the Max Planck Institute for Intelligent Systems, Tübingen — *May'15 - July'15*

Analytics over Problem Management Records (PMRs) for automatic complaint resolution
IBM, India Research Labs, Delhi — *May'14 - July'14*

ACHIEVEMENTS

- B.Tech in Computer Science and Engineering with distinction from IIT Kanpur.
- 3rd out of about 250 teams in ACM-ICPC Amritapuri Regionals, 2015 (team: tarjanhorse). Top team from IIT Kanpur in 2015, 2014 and 2013.

- Among ten teams selected from India for the Xerox Research Innovation Challenge, 2015-16.
- DAAD WISE scholar 2015 to the Max Planck Institute for Intelligent Systems, Tübingen, Germany.
- Joint Entrance Exam, 2012: Ranked 242 (top 0.05%) among 506,484 candidates across India.
- All India Engineering Entrance Exam, 2012: Ranked 13 (top 0.001%) among 1,137,256 candidates across India.
- Among 4 selected to represent India at the International Olympiad in Informatics, Italy in 2012.
- Stood 2nd all over India in the Indian National Mathematics Olympiad, 2010 and selected for International Mathematics Olympiad Training Camp (IMOTC), India.

PARTICIPATION AT CONFERENCES AND SEMINARS

- International Conference on Machine Learning, Sydney, 2017
- IKDD Conference on Data Science, Pune, 2016
- Machine Learning Summer School, Tübingen, 2015
- Symposium on Learning, Algorithms and Complexity, IISc Bangalore, 2015

POSITIONS OF RESPONSIBILITY

- **Research Fellow Social Chair**, Microsoft Research (2016)
- **Coordinator**, Special Interest Group, Machine Learning, IIT Kanpur (2015 - 2016) [website]
- **Tutor** for ESC101, the introductory programming course at IIT Kanpur (2015)
- **Helper**, during Machine Learning Summer School (MLSS), Tübingen (2015)
- **Coordinator**, Association for Computing Activities (student body of CSE department) (2014-15)
- **Coordinator**, Card and Board Games Hobby Group, IIT Kanpur (2014-15)
- **Student representative**, Student Undergraduate Council (SUGC), IIT Kanpur (2013-14)
- **Senator**, Students' Senate, IIT Kanpur (2012-13)