Utkarsh Upadhyay
Ph.D. candidate at MPI-SWS

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Research Interest

Developing large scale data-driven models and methods for understanding, predicting and improving the creation, consumption and dissemination of information and knowledge on real-world networks.

Education

Jan '15 – *present*	Ph.D. Candidate at MPI-SWS, supervised by Dr. Manuel Gomez Rodriguez
Sept '09 – Feb '12	M.S. in Computer Science at EPFL, Switzerland, GPA: **5.7/6**
Aug '05 – May '09	B.Tech. in Electrical Eng. at Indian Institute of Technology, Kanpur; CPI: **9.5/10**

Work

May '15 – *present*	Technical advisor for SpeaQWith.Me in Saarbrücken, Germany
Apr '12 – Dec '14	Data analytics, visualisation and web-client developer at Better AG, Zürich, Switzerland
Aug '10 – Feb '11	Internship at CCIL-NEC, Japan on *Information diffusion on Twitter*
May '08 – July '08	Internship at Microsoft Research, Redmond on *RoboCopy* replacement, *RoboClone*

Academic Honors

2017-18	Yahoo! Academic Research Program (ARP) Collaborator
2016	Travel award for attending KDD '16
2012	Awarded *Prix ECLA Informatique* for highest GPA in Computer Science MS at EPFL
2009-10	Awarded the Academic Excellence scholarship for studying at EPFL
2009	Silver medal at the programming competition ACM-SWERC '09
2005-09	Recipient of the Aditya Birla Scholarship (Given to 10 students all over India)
2005-06	Recipient of the Academic Excellence Award at IITK
2005	Secured 108th rank in Joint Entrance Examination for IITs (Percentile: 99.97%)

Publications

- A. Zarezade, A. De, **U. Upadhyay**, H. R. Rabiee, M. Gomez-Rodriguez. *Steering Social Activity: A Stochastic Optimal Control Point of View.* Submitted to Journal of Machine Learning Research (JMLR).

- B. Tabibian, **U. Upadhyay**, A. De, A. Zarezade, B. Schölkopf, M. Gomez-Rodriguez. *Optimizing Human learning.* Workshop on Teaching Machines, Robots and Humans Workshop at Neural Information Processing Systems (NIPS) 2017.

- **U. Upadhyay**, I. Valera, M. Gomez-Rodriguez. *Uncovering the Dynamics of Crowdlearning and the Value of Knowledge.* ACM International Conference on Web Search and Data Mining (WSDM) 2017.

- A. Zarezade, **U. Upadhyay**, H. Rabiee, M. Gomez-Rodriguez. *RedQueen: An Online Algorithm for Smart Broadcasting in Social Networks.* ACM International Conference on Web Search and Data Mining (WSDM) 2017.

- S. L. Blond, C. Gilbert, **U. Upadhyay**, M. Gomez-Rodriguez, D. Choffnes. *A Broad View of the Ecosystem of Socially Engineered Exploit Documents.* Network and Distributed System Security symp. (NDSS) 2017.

- **U. Upadhyay**, I. Valera, M. Gomez-Rodriguez. *On Crowdlearning: How do People Learn in the Wild?* Workshop on Machine Learning for Education in Conference on Neural Information Processing Systems (NIPS) 2016.

- N. Du, H. Dai, R. Trivedi, **U. Upadhyay**, M. Gomez-Rodriguez, L. Song. *Recurrent Temporal Point Processes: Embedding Event History to Vector*, ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2016.

- R. Khalili, N. Gast, M. Popovic, **U. Upadhyay**, J.-Y. Le Boudec. *MPTCP is not Pareto-optimal: Performance issues and a possible solution.* **Best Paper Award**, ACM SIGCOMM International Conference on emerging Networking Experiments and Technologies (CoNEXT) 2012.

- G. Mermoud, M. Mastrangeli, **U. Upadhyay**, A. Martinoli. *Real-Time Automated Modeling and Control of Self-Assembling Systems.* IEEE International Conference on Robotics and Automation (ICRA) 2012.

- **U. Upadhyay**, N. Yoshinaga, S. Itaya, R. Tanaka, T. Konishi, S. Doi, K. Yamada, P. Davis. *Evaluation of Participants in Group-discussions on Twitter.* 8th Applications of Social Network Analysi (ASNA) 2011.

- G. Mermoud, **U. Upadhyay**, W. C. Evans, A. Martinoli. *Top-Down vs Bottom-Up Model-Based Methodologies for Distributed Control: A Comparative Experimental Study*, International Symposium on Experimental Robotics (ISER) 2010.

- R. Arora, **U. Upadhyay**, R. Tulshyan, K. Deb, J. Dutta. *A Parallel Randomized Algorithm for Solving Large Convex Minimax Problem.* Conference on Simulated Evolution and Learning (SEAL) 2010. Appears in LNCS, Springer, Vol. 6475.

Technical skills

Programming	Python, TypeScript, JavaScript, R, C++, C, Java, Haskell, Ocaml
OSS Contributor	CPython, scipy, scikit-learn, cvxpy, IPython, meteor, Semantic-UI, @first_tmrs_only
Languages spoken	English (fluent), Hindi (native), German (beginner)

Interests & activities

- Prizes in puzzle solving and programming competitions:
  - Won Startup Weekend Saarbrüken in May '15 and co-founded SpeaQWith.Me
  - Silver medal at Swiss national HC^2 '10 programming competition at EPFL
  - Silver medal at ACM-SWERC '09 programming competition at Madrid, Spain
  - 2nd place twice in Chaos programming contest (Techkriti '06 and '07)
  - 2nd place in 99 word story writing competition in Alfaaz '08, the literary festival
  - 1st place in Electronic Circuit Design Competition, Techkriti '06

- Positions of responsibility held:
  - Program Committee for NIPS 2016
  - Co-organized Machine Learning Summer School 2016 in Càdiz, Spain
  - Coordinator of SciMaTEX, the pure science events, and TesseracT, the online puzzle solving competition in Techkriti (technical festival) '08
  - Secretary for Electronics club and English Literary Society events in Antragni (cultural festival) '07
  - A problem setter for International Online Programming Competition, conducted in Techkriti '08

- Teaching activity:
  - Taught a tutorial on Point Processes in Machine Learning Summer School 2016 in Càdiz, Spain
  - Taught a tutorial on Network Analysis in Machine Learning Summer School 2017 in Tübingen, Germany
  - Teaching assistant for the seminar course on Social and Information Networks at TU-KL, 2016

- Reviewer for: WSDM ('16), NIPS ('17,'16,'15), IJCAI ('16), KDD ('16), SDM ('16), WWW ('16), AISTATS ('16), AAAI ('16), CIKM ('15)