

Education

Ph.D. in Computer Science

The University of Texas at Austin, Aug. 2007

Title: *Matrix Nearness Problems in Data Mining*. Advisor: I. S. Dhillon

M.S. in Computer Science

University of Texas at Austin, Aug. 2006

B. Engg. (Hons.) in Computer Science

Birla Inst. of Tech. & Science, Pilani, India, Jun. 1999

Positions

- **Esther and Harold E. Edgerton (1927) Career Development Associate Professor**, Electrical Engineering and Computer Science (EECS) and Institute for Data Systems and Society (IDSS), Massachusetts Institute of Technology (MIT). Jan 2019–now.
- **Chief AI Officer and Co-founder** Macro-Eyes (AI startup); 2014–now.
- **Visiting Professor**, Dept. of Computer Science, ETH Zürich, Jun 2019–Aug 2019
- **Assistant Professor**, Electrical Engineering and Computer Science (EECS) and Institute for Data Systems and Society (IDSS), Massachusetts Institute of Technology (MIT). Jan 2018–Jan 2019
- **Principal Investigator** (Research Faculty) at Laboratory for Information & Decision Systems (LIDS), Massachusetts Institute of Technology (MIT); Jan. 2015–Dec. 2017
- **Senior Research Scientist**, at the Department of Empirical Inference (hosted by Bernhard Schölkopf) Max Planck Institute for Intelligent Systems Tübingen, Germany; Jul. 2012–Aug. 2014
- **Visiting Assistant Professor**, Machine Learning Department, School of Computer Science (SCS), Carnegie Mellon University, Pittsburgh; Sep. 2013–May 2014
- **Visiting faculty**, EECS, University of California, Berkeley; Jan.–May 2013
- **Research Scientist** hosted by Prof. Bernhard Schölkopf Max Planck Institute for Intelligent Systems Tübingen, Germany; (formerly MPI for Biological Cybernetics). Oct. 2007–Jun. 2012

Selected Honors & Awards

- **Alexander von Humboldt Professorship** (EUR 5M award), Germany, Nov 2021
- **NSF-CAREER Award** (Jan 2019).
- **Invited lecturer** on “*Optimization for ML*” at the Machine Learning Summer School (MLSS), Tübingen, Germany, Jun. 2017.
- **Amazon Research Award** (Oct 2017)
- **Criteo Faculty Research Award** (Sep 2017).
- **NSF-BIGDATA Award** (Sep 2017).
- **SIAM Outstanding Paper Prize**, Jul. 2011
One of three best papers among all papers published in SIAM journals between 2008–2010.
- **Best Paper Runner Up Award**, Sep., 2011
European Conference on Machine Learning (ECML 2011), Athens, Greece.
- **Best poster award**, Jul. 2009
Int. Conf. on Cosmology and Statistics (COSMOSTATS), Ascona, Switzerland
- **Best Student Paper**, Jun. 2007
Int. Conference on Machine Learning (ICML)
- **Best of SDM Papers** Apr. 2007
SIAM Data Mining Conference (SDM)

Invited long-term research visits

- **Invited long-term participant**, Simons Institute, UC Berkeley, Jan 2017–May 2017; Aug 2021–Dec 2021 in the program *Foundations of Machine Learning*.

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- **Invited long-term participant**, Hausdorff Institute for Mathematics, Bonn, Jan 2016–Mar 2016 in the program *Mathematics of Signal Processing*.

Selected recent teaching

- Introduction to Machine Learning** (Fall 2016–2019, Fall 2021)
Course: 6.867, Graduate level course, EECS Department, MIT
- OPTML: Optimization for Machine Learning** (Spring 2021, 2020)
Course: 6.881, Graduate course, EECS Department, MIT
- OPTML++: Optimization for Machine Learning** (Fall 2020, 2016, 2015)
Research seminar, LIDS, EECS, MIT.
- Introduction to Machine Learning** (Spring 2016, 2015)
Course: 6.036, Undergraduate level, EECS Department, MIT
(co-taught with Tommi Jaakkola and Regina Barzilay)
- Advanced Optimization and Randomized Methods** (Spring 2014)
Graduate course, *ML Department, Carnegie Mellon University, Pittsburgh*
(created course and co-taught with Alex Smola)
- Convex optimization; EE 227A** (Spring 2013) (by invitation)
Graduate course, *EECS Department, University of California, Berkeley*
(created entire graduate level course from scratch)

Publications

Over 150 peer-reviewed publications. [[Google Scholar](#)]; \approx 13,000 citations; h-index: 59; i10-index: 128

Professional Service

- Associate Editor:** Journal of Machine Learning Research (JMLR); IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) (resigned.)
- Associate Editor:** Optimization Methods and Software (OMS); 2014–2020
- Scientific committee member:** “Machine learning and optimization” track at ISMP 2018.
- Senior AC, AC, or Senior Program Committee Roles** (1). Neural Information Processing Systems (NIPS), 2021, 2019–2016, 2014, 2013 (2). International Conference on Machine Learning (ICML) 2021, 2020, 2018, 2016–14 (3). Artificial Intelligence & Statistics (AISTATS) 2016, 2014 (4). AAAI Conference of Artificial Intelligence (AAAI 2018) (5). Conference on Learning Theory (COLT) 2020, 2018
- Workshop Chair:** OPT 2008—OPT 2017, OPT 2019
The “Optimization for ML” workshop at *Neural Information Processing Systems (NIPS)*.
- Reviewer** for over 50 journals and conferences in ML, Math, Statistics, Signal Processing, Vision, etc.

Students, Postdocs, and others mentored

Students and Postdocs (current and past):

- Joshua Robinson (PhD, CSAIL, MIT) • Pourya Habibzadeh (PhD, EECS) • Tiancheng Yu (PhD, EECS)
- Yi Tian (PhD, EECS) • Horia Mania (Postdoc 2020–) • Xiang Cheng (Postdoc 2020–) • Kwangjun Ahn (PhD, EECS) • Chulhee Yun ([PhD 2021](#), EECS, MIT) • Jingzhao Zhang ([PhD 2021](#), EECS, MIT) • Alp Yurtsever ([Postdoc 2020-21](#)) • Zelda Mariet ([PhD 2019](#), CSAIL, MIT) • Hongyi Zhang ([PhD 2019](#), BCS, MIT) • Chengtao Li ([PhD 2019](#), CSAIL, MIT)

Visiting students, and other students advised for a non-trivial time

- Melanie Weber (2017–2021, PhD Princeton) • Jikai Jin (2021, PKU Math) • Alp Yurtsever (2019, PhD EPFL) • Sashank Reddi (2013–17, PhD CMU) • Pourya Habib’zadeh (2016, MS, Univ. Tehran, Iran)
- Yu-Xiang Wang (2013–14, PhD CMU) • Adams Wei Yu (2013-14, MS CMU) • Ahmed Hefny (2013-15, PhD CMU) • Veeranjanyulu Sadhanala (2013-14, PhD CMU) • Anoop Cherian (2011–2013, PhD UMN) • Álvaro Barbero (2010–2011, PhD UAM Madrid) • Namhyoung Kim (2010, PhD POSTECH, Korea) • Carlos María Gudín (2011–2012, PhD UAM Madrid) • Michael Hirsch (2008–2010) (PhD MPI-Tübingen)