EDUCATION

Ph.D. in Electrical and Computer Engineering

May '21 (expected)

University of Illinois at Urbana-Champaign, Urbana, IL, USA Advisor: Sewoong Oh, CSE, University of Washington, Seattle

Master of Science in Electrical and Computer Engineering

May '17

University of Illinois at Urbana-Champaign, Urbana, IL, USA

Advisor: Sewoong Oh, Thesis: "Collaborative ranking from ordinal data"

Bachelor of Technology (Honors) in Electrical Engineering

Jul '14

minor in Operations Research Indian Institute of Technology Madras, Chennai, India

EXPERIENCE

UIUC, Graduate Research Assistant, Urbana, IL	May '14 – present
Google, Cloud AI, Student Researcher, Sunnyvale, CA	May '17 – Jul '18
Google Research, Software Engineering Intern, Mountain View, CA	May '16 – Aug '16
TU-Dresden, Research Praktikum (Intern), Dresden, Germany	May '13 – Jul '13
ST-Ericsson, Software Engineering Intern, Bengaluru, India	May '12 – Jul '12

Publications $(^{\dagger}alphabetical)$ ordering of *authors*)

- K. Thekumparampil, P. Jain, P. Netrapalli, S. Oh, "Projection Efficient Subgradient Method and Optimal Nonsmooth Frank-Wolfe Method", Neural Information Processing Systems (NeurIPS), Online, 2020, **Spotlight presentation** (Spotlight acceptance rate: 3.0%)
- Z. Lin, K. Thekumparampil, G. Fanti, S. Oh, "InfoGAN-CR: Disentangling Generative Adversarial Networks with Contrastive Regularizers", International Conference on Machine Learning (ICML), Online, 2020, (Acceptance rate: 21.8%)
- K. Thekumparampil, P. Jain, P. Netrapalli, S. Oh, "Efficient Algorithms for Smooth Minimax Optimization", Neural Information Processing Systems (NeurIPS), Vancouver, Canada, 2019, (Acceptance rate: 21.2%)
- K. Thekumparampil, A. Khetan, Z. Lin, S. Oh, "Robustness of conditional GANs to noisy labels", Neural Information Processing Systems (NeurIPS), Montreal, Canada, 2018, Spotlight presentation, (Spotlight acceptance rate: 3.5%)
- S. Negahban, S. Oh, †K. Thekumparampil, J. Xu, "Learning from Comparisons and Choices", Journal of Machine Learning Research, 2018 Jan 1;19(1):1478-572
- S. Oh, †K. Thekumparampil, J. Xu, "Collaboratively learning preferences from ordinal data.". Neural Information Processing Systems (NIPS), Montreal, Canada, 2015 (Acceptance rate: 21.9%)
- K. Thekumparampil, A. Thangaraj, R. Vaze, "Combinatorial resource allocation using submodularity of waterfilling", IEEE Transactions on Wireless Communications 15.1 (2016): 206-216.

- WORKSHOP PAPERS K. Thekumparampil, P. Jain, P. Netrapalli, S. Oh, "Optimal Single-loop Online Stochastic Frank-Wolfe method", NeurIPS 2020 workshop on Optimization in ML, Online, 2020 (to appear)
 - K. Thekumparampil, A. Khetan, S. Oh, "Robust conditional GANs under missing or uncertain labels", ICML 2019 workshop on Uncertainty & Robustness in Deep Learning, Long Beach, USA, 2019 (arXiv:1906.03579)

TECHNICAL Reports

K. Thekumparampil, Chong Wang, Sewoong Oh, Li-Jia Li, "Attention-based Graph Neural Network for Semi-supervised Learning", arXiv preprint, arXiv:11803.03735

Talks

2020/12/10: "Projection Efficient Subgradient Method and Optimal Nonsmooth Frank-Wolfe Method", Spotlight presentation at NeurIPS 2020 conference, Online

 $2020/11/20\colon$ "Optimal Stochastic Nonsmooth Frank-Wolfe Method", ML Retreat, CSE, UW, Seattle WA

2020/10/30: "Projection Efficient Subgradient Method and Optimal Nonsmooth Frank-Wolfe Method", Opt-ML Seminar, CSE, UW, Seattle, WA

2020/01/05: "Efficient algorithms for smooth minimax optimization", Graduation Day talk, 2020 Information Theory and Applications Workshop, San Diego, CA

2019/09/05: "Acceleration by coupling Mirror Descent and Gradient Descent, through the lens of potential functions", Summer Optimization Reading group, CSE, UW, Seattle, WA

2019/05/14: "Robust conditional GANs under missing or uncertain labels", ICML 2019 workshop on Uncertainty & Robustness in Deep Learning, Long Beach, CA

2019/02/06: "Robust training of Conditional GANs with noisy labeled data", Machine Learning: Theory and Algorithms track, CSL Student Conference 2019, UIUC, Urbana, IL

2018/12/04: "Robust training of Conditional GANs with noisy labeled data", Spotlight presentation at NeurIPS 2018 conference, Montreál, Canada

PROFESSIONAL SERVICES AND ACTIVITIES

- ICML 2020 conference Area Chair
- Reviewer for:
 - Conferences: NeurIPS (2019-20), ICML (2019), AISTATS (2019-21), ALT (2021)
 - Journals: IEEE TNNLS 2020, IEEE TPAMI 2019, IEEE Transactions on Wireless Communications 2016, IEEE Journal on Selected Areas in Communications 2015,
- Research mentor for Harshay Shah (UIUC BS CS '19, now at Microsoft Research, India)
- Teaching Assistant for Introduction to Computing (ECE 120, Spring 2016, UIUC)

SKILLS

Languages: Python (Tensorflow, Pytorch, scipy), C++, MATLAB, Java, C, R Operating systems and other tools: Windows and Unix, git, svn, gcc, gdb, Google Cloud, AWS

HONORS AND SCHOLASTIC ACHIEVEMENTS

- Awarded CBSE Merit Scholarship for securing Kerala State 3rd Rank and All India Rank 407 in All-India Engineering Entrance Examination (AIEEE) 2010
- Invited to give the very selective Graduation Day talk at the 2020 Information Theory and Applications Workshop, San Diego, California, USA.
- Received Scholarship from Gesellschaft von Freunden und Förderern der TU Dresden e.V for conducting research at Technische Universität Dresden, Germany (2013)
- Spotlight presentation (NeurIPS '18, '20), Best talk award (CSL Student Conference 2019, UIUC)
- Travel grant award: NeurIPS 2019, 2018, 2015