Shahana Ibrahim

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EDUCATION

Oregon State University, Corvallis   Oregon, USA
PhD in Electrical Engineering; **Current GPA** 4.0/4.0   *Nov 2019 - Present*
Advisor: Dr. Xiao Fu
Courses: *Intelligent Agents & Decisions, Deep Learning*

Oregon State University, Corvallis   Oregon, USA
Masters in Electrical Engineering; **Overall GPA** 4.0/4.0   *Sep 2018 - Nov 2019*
Advisor: Dr. Xiao Fu
Courses: *Machine Learning, Nonlinear programming, Estimation and Detection, Linear Systems*

Texas A&M University, College Station   Texas, USA
Masters in Electrical Engineering; **Overall GPA** 4.0/4.0   *Aug 2017 - May 2018 (Transferred)*
Advisor: Dr. Dileep M Kalathil
Courses: *Convex Optimization, Stochastic Systems, Probability for Engineering Decisions,*
Introduction to Classical Analysis

National Institute of Technology, Calicut   Kerala, India
Bachelors in Electronics and Communication Engineering   *May 2008 - May 2012*
Overall GPA 9.38/10.0

PUBLICATIONS

- Wenqiang Pu, **Shahana Ibrahim**, Xiao Fu, and Mingyi Hong, *"Stochastic Mirror Descent for Low-Rank Tensor Decomposition Under Non-Euclidean Losses"*, IEEE Transactions on Signal Processing, April 2021 (under review)

- **Shahana Ibrahim** and Xiao Fu, *"Mixed Membership Graph Clustering via Systematic Edge Query"*, IEEE Transactions on Signal Processing, December 2020 (under review)

- **Shahana Ibrahim** and Xiao Fu, *"Crowdsourcing via Annotator Co-occurrence Imputation and Provable Symmetric Nonnegative Matrix Factorization"*, International Conference on Machine Learning, 2021 (accepted)

- **Shahana Ibrahim** and Xiao Fu, *"Recovering Joint Probability of Discrete Random Variables from Pairwise Marginals"*, IEEE Transactions on Signal Processing, June 2021 (accepted)

- Wenqiang Pu, **Shahana Ibrahim**, Xiao Fu, and Mingyi Hong, *"Fiber-Sampled Stochastic Mirror Descent For Tensor Decomposition with β-Divergence"*, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 2925-2929, June 2021

- **Shahana Ibrahim** and Xiao Fu, *"Learning Mixed Membership from Adjacency Graph via Systematic Edge Query: Identifiability and Algorithm"*, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 5370-5374, June 2021

- **Shahana Ibrahim** and Xiao Fu, *"Recovering Joint PMF from Pairwise Marginals"*, Asilomar Conference on Signals, Systems, and Computers, pp. 356-360, November 2020

- **Shahana Ibrahim**, Xiao Fu, and Xingguo Li, *"On Recoverability of Randomly Compressed Tensors with Low CP Rank"*, IEEE Signal Processing Letters, vol. 27, pp. 1125-1129, June 2020

- Xiao Fu, **Shahana Ibrahim**, Hoi-To Wai, Cheng Gao, and Kejun Huang, *"Block-Randomized Stochastic Proximal Gradient for Low Rank Tensor Factorization"*, IEEE Transactions on Signal Processing, vol. 68, pp. 2170-2185, March 2020

- **Shahana Ibrahim**, Xiao Fu, Nikos Kargas, and Kejun Huang "*Crowdsourcing via Pairwise Co-occurrences: Identifiability and Algorithms*", Advances in Neural Information Processing Systems, pp. 7845-7855, 2019

- **Shahana Ibrahim** and Xiao Fu, "*Stochastic Optimization for Coupled Tensor Decomposition with Applications in Statistical Learning*", IEEE Data Science Workshop (DSW), pp. 300-304, June 2019

- **Shahana Ibrahim**, Dileep Kalathil, Rene Sanchez, and Pravin Varaiya, "*Estimating Phase Duration for SPAT messages*", IEEE Transactions on Intelligent Transportation Systems, vol. 20, no. 7, pp. 2668-2676, July 2019

PROFESSIONAL EXPERIENCE

NVIDIA   Santa Clara, USA
GPU Validation Intern   *May 2018 - Aug 2018*
  – Validated the software tests for highly computational matrix operations for new line of GPU products.
  – Analyzed the speed characterization including stress coverage and noise checks during software tests and debugged the potential issues in the systems.

Texas Instruments   Bangalore, India
System Validation Engineer   *July 2012 - Jun 2017*
  – Handled the pre-silicon FPGA validation of digital signal processing modules such as interleaving spur correction, digital down converter, JESD etc. in transceiver system for high speed integrated wireless transceiver products.
  – Contributed to the firmware development, FPGA design, synthesis and implementation for the post-silicon validation that resulted in an efficient validation methodology for the wireless transceiver products.

TECHNICAL TALKS

  – IEEE ICASSP Conference   *Virtual Talk, Jun 2021*
  – Asilomar Signal Processing Conference   *Virtual Talk, Nov 2020*
  – IEEE Data Science Workshop   *Minnesota MN, Jun 2019*
  – Artificial Intelligence (AI) Group Seminar   *OSU Corvallis, Mar 2019*
  – Signal Processing (SP) Group Seminar   *OSU Corvallis, Feb 2019*

ACADEMIC ACHIEVEMENTS

  – IEEE SPS professional development grant to attend PROGRESS Workshop, ICASSP 2021
  – Reviewer of Journal of Selected Topics in Signal Processing, 2020
  – Reviewer of AISTATS, 2019
  – Travel grant for NeurIPS, December, 2019
  – NSF travel grant for IEEE Data Science Workshop, June, 2019
  – ECEN departmental merit scholarship, Texas A&M University, 2017
  – Best paper award in Texas Instruments India Technical Conference, Bangalore, 2017
  – Second rank holder, B-Tech, Electronics and Communcation Engineering, NIT Calicut, 2012