Sen Lin

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Education

- **Arizona State University** — Tempe, AZ
  Ph.D in Electrical Engineering — *Aug 2015 – Oct 2021*
- **The Hong Kong University of Science and Technology** — Hong Kong
  M.Sc in Telecommunications — *Sep 2013 – Jul 2014*
- **Zhejiang University** — HangZhou, China
  B.E in Electrical Engineering — *Sep 2009 – Jul 2013*

Academic Experience

- **The Ohio State University** — Columbus, OH
  Postdoc at NSF AI-EDGE Institute — *Jul 2022 – Present*
- **Arizona State University** — Tempe, AZ
  Postdoc — *Oct 2021 – Jun 2022*

Research Project

- **Scalable Continual Meta-Reinforcement Learning for Dynamic Graphs**:
  - Team members: Professor Anish Arora (PI), **Sen Lin**, Yung-Fu Chen, Salil Reddy
  - Duration: November 1, 2022 - October 31, 2023
  - Funding agency: Cisco Systems, Inc.

Publications

- **Book**
  - **(B1) S. Lin**, Z. Zhou, Z. Zhang, X. Chen and J. Zhang. Edge Intelligence in the Making: Optimization, Deep Learning, and Applications. *A Publication in the Morgan & Claypool Publishers series.*
- **Conference Paper & Submissions**
  - **(S6)** L. Yang, **S. Lin**, J. Zhang and D. Fan. Efficient Self-supervised Continual Learning with Layer-wise Weight Freezing. Submitted to *The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, under review, 2023.
  - **(S5)** Z. Guan, D. Sow, **S. Lin** and Y. Liang. Gradient-based Algorithms for Pessimistic Bilevel Optimization. Submitted to *International Conference on Learning Representations (ICLR)*, under review, 2023.
  - **(S4)** S. Yue, G. Wang, W. Shao, Z. Zhang, **S. Lin**, J. Ren and J. Zhang. CLARE: Conservative Model-Based Reward Learning for Offline Inverse Reinforcement Learning. Submitted to *International Conference on Learning Representations (ICLR)*, under review, 2023.
  - **(S3)** D. Sow, **S. Lin**, Y. Liang and J. Zhang. Task-agnostic online meta-learning in non-stationary environments. Submitted to *International Conference on Learning Representations (ICLR)*, under review, 2023.
  - **(S2)** H. Wang, **S. Lin** and J. Zhang. The impact of approximation errors on warm-start reinforcement learning: A finite-time analysis. Submitted to *International Conference on Learning Representations (ICLR)*, under review, 2023.
  - **(S1)** J. Wan, **S. Lin**, Z. Zhang, J. Zhang and T. Zhang. Scheduling real-time wireless traffic: A network-aided offline reinforcement learning approach. Submitted to *IEEE Conference on Computer Communications (INFOCOM)*, under review, 2022.

- **(C13) S. Lin**, L. Yang, D. Fan and J. Zhang. Beyond Not-Forgetting: Continual Learning with Backward Knowledge Transfer. *Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS)*, 2022.
- **(C12)** L. Yang, **S. Lin**, J. Zhang and D. Fan. CL-LSG: Continual Learning via Learnable Sparse Growth. *NeurIPS Memory in Artificial and Real Intelligence workshop*, 2022.
- **(C11)** M. Dedeoglu, **S. Lin**, Z. Zhang and J. Zhang. Federated Learning Based Demand Reshaping for Electric Vehicle Charging. *IEEE Global Communications Conference (GLOBECOM)*, 2022.
- **(C10) S. Lin**, L. Yang, D. Fan and J. Zhang. TRGP: trust region gradient projection for continual learning. *The Tenth International Conference on Learning Representations (ICLR)*, 2022. (**Spotlight, top 5% of all submissions**)
- **(C9) S. Lin**, J. Wan, T. Xu, Y. Liang and J. Zhang. Model-based offline meta-reinforcement learning with regularization. *The Tenth International Conference on Learning Representations (ICLR)*, 2022.
- **(C8)** H. Wang, **S. Lin** and J. Zhang, Adaptive ensemble q-learning: minimizing estimation bias via error feedback. *35th Conference on Neural Information Processing Systems (NeurIPS)*, 2021.
- **(C7) S. Lin**, L. Yang, Z. He, D. Fan and J. Zhang. MetaGater: fast learning of conditional channel gated networks via federated meta-learning. *The 18th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS)*, 2021. (Invited Paper)
- **(C6) S. Lin**, M. Dedeoglu and J. Zhang. Accelerating distributed online meta-learning via multi-agent collaboration under limited communication. *Proceedings of the 22th International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc)*, 2021.
- **(C5)** S. Yue, J. Ren, J. Xin, **S. Lin** and J. Zhang. Inexact-ADMM based federated meta-learning for fast and continual edge learning. *Proceedings of the 22th International Symposium on Theory, Algorithmic Foundations, and Protocal Design for Mobile Networks and Mobile Computing (MobiHoc)*, 2021.
- **(C4)** H. Wang, **S. Lin**, H. Jafarkhani and J. Zhang. Distributed q-learning with state tracking for multi-agent networked control. *Proceedings of the 20th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2021. (Extended Abstract)
- **(C3) S. Lin**, G. Yang and J. Zhang. A collaborative learning framework via federated meta-learning. *2020 40th IEEE International Conference on Distributed Computing Systems (ICDCS)*, Nov 2020.
- **(C2)** Z. Zhang, **S. Lin**, M. Dedeoglu, K. Ding and J. Zhang. Data-driven Distributionally Robust Optimization for Edge Intelligence. In *2020 IEEE Computer Communications (INFOCOM)*, Jul 2020.
- **(C1) S. Lin**, J. Zhang and L. Ying. Waze-inspired Spectrum Discovery via Smartphone Sensing Data Fusion. In *2018 16th International Symposium on Modeling and Optimization inMobile, Ad Hoc, and Wireless Networks (WiOpt)*, pages 18, May 2018. (**Best Student Paper Award**)

- **Journal Paper & Submissions**
  - **(S2)** M. Dedeoglu, **S. Lin**, Z. Zhang and J. Zhang. Adaptive coalescence of generative models: from wasserstein-1 barycenter to fast edge learning. Submitted to *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, under review.
  - **(S1) S. Lin**, H. Wang and J. Zhang. System identification via meta-learning in linear time-varying environments. Submitted to *Journal of Machine Learning Research (JMLR)*, under review.
  - **(J1) S. Lin**, J. Zhang and L. Ying. Crowdsensing for Spectrum Discovery: A Waze-Inspired Design via Smartphone Sensing. *IEEE/ACM Transactions on Networking*, Volume: 28, Issue: 2, April 2020.

Hornors

- **University Graduate Fellowship**: 2015, 2021
- **Best Student Paper Award in WiOpt 2018**: 2018
- **Third-Class Scholarship for Outstanding Merits of Zhejiang University**: 2012
- **Third-Class Scholarship for Outstanding Students of Zhejiang University**: 2012
- **Excellent Student Awards of Zhejiang University**: 2012
- **Third Prize of the National Talents Training Base**: 2012

Activities

- **Teaching assistant**: EEE 120: Digital Design Fundamentals, ASU, Fall 2015, Spring 2016; EEE 489: Senior Design Laboratory II, ASU, Spring 2021
- **Reviewer**: IEEE Wireless Communications Magazine, IEEE/ACM Transactions on Networking, IEEE Transactions on Wireless Communications, IEEE Internet of Things Journal, IEEE Transactions on Cloud Computing, ACM Transactions on Knowledge Discovery from Data, IEEE Computational Intelligence Magazine, IEEE Transactions on Neural Networks and Learning Systems, NeurIPS, SECON, MobiHoc, Globecom

Additional Information

- **Skills**: Matlab, Python, C, Ruby, Verilog