# **SHAOCONG MA**

#### **CONTACT INFORMATION**

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#### **EDUCATION**

PhD in Electrical and Computer Engineering
University of Utah

Sep. 2019-Jun. 2023
GPA:4.0/4.0

M.A. in Statistics Sep. 2017-Jun. 2019

University of California, Santa Barbara GPA: 3.9/4.0

**B.S. in Statistics**Sep. 2013-Jun. 2017
Sichuan University
GPA: 3.6/4.0

# **INTERNSHIP**

Student Intern May. 2022-Aug. 2022

Lawrence Livermore National Security

- Develop a backpropagation-free training algorithm for GNN containing non-differentiable modules.
- Test the out-of-distribution robustness of GNN model on large-scale CFD problems.
- Design a multi-modal model for protein-ligand binding affinity prediction on 3D point cloud dataset.

#### **SELECTED PUBLICATIONS**

**Shaocong Ma**, Yi Zhou. *Understanding the Impact of Model Incoherence on Convergence of Incremental SGD with Random Reshuffle*. **ICML. 2020.** (Acceptance rate: 21.8%)

**Shaocong Ma**, Yi Zhou, Shaofeng Zou. *Variance-Reduced Off-Policy TDC Learning: Non-Asymptotic Convergence Analysis*. **NeurIPS. 2020.** (Acceptance rate: 20.1%)

**Shaocong Ma**, Ziyi Chen, Yi Zhou, Shaofeng Zou. *Greedy-GQ with Variance Reduction: Finite-time Analysis and Improved Complexity.* **ICLR. 2021.** (Acceptance rate: 28.7%)

**Shaocong Ma**, Ziyi Chen, Yi Zhou, Kaiyi Ji, Yingbin Liang. *Data Sampling Affects the Complexity of Online SGD over Dependent Data*. **UAI. 2022.** (Acceptance rate: 32.3%)

## **PROJECTS**

## A PyTorch Implementation of Wasserstein Robust Model (WRM)

- GitHub: <a href="https://github.com/mshaocong/wasserstein">https://github.com/mshaocong/wasserstein</a> robust model
- Related paper (Published on IEEE ISIT 2022): <a href="https://arxiv.org/abs/2112.11663">https://arxiv.org/abs/2112.11663</a>

# **OTHER EXPERIENCES**

# **Reviewer/ Program Committee**

NeurIPS 2021; IEEE BigData 2021; IJCAI-ECAI 2022; ICML 2022; NeurIPS 2022; ICLR 2023.

### **Teaching Assistant**

Statistics; Statistics for Life Science; Statistics for Economics; Survival Analysis; Actuarial Statistics; Fundamentals of Signals and Systems.