**SHAOCONG MA**

**CONTACT INFORMATION**

**E-mail:** s.ma@utah.edu

**Phone:** (+1) 385-439-4778

**Website:** mshaocong.github.io

**EDUCATION**

**PhD in Electrical and Computer Engineering Sep.2019-Jun. 2023(Expected)**

University of Utah GPA:4.0/4.0

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

University of California, Santa BarbaraGPA: 3.9/4.0

**B.S. in Statistics Sep. 2013-Jun. 2017**

Sichuan University GPA: 3.6/4.0

**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%)

**PROJECTS**

**Medical Dataset Analysis: EEG-based Epilepsy Seizure Detection and Prediction**

* Few-shot learning on highly unbalanced dataset (CHB-MIT Scalp EEG Database)
* Achieved 97.02% accuracy with 56.00% sensitivity.
* Designed and analyzed convolutional network structure for detecting and predicting epilepsy symptom.

**Robust Image Classifier: Improved Robustness via Regularized Wasserstein Robustness Model**

* Proposed a new training strategy for the regularized Wasserstein robustness model (WRM)
* WRM is used to avoid the adversarial attack and improve the classifier robustness.
* Achieved around 20% faster convergence speed with almost same.

**A Convergent Single-Loop Proximal-GDA Algorithm with Momentum for Nonconvex Minimax Optimization**

* Submitted to ICML 2021.
* Built a GPU-based accelerating optimization environment.
* Implemented high-performance algorithms using PyTorch for solving large-scale min-max optimization problem.

**TEACHING EXPERIENCES**

Statistics; Statistics for Life Science; Statistics for Economics;

Survival Analysis; Actuarial Statistics; Fundamentals of Signals and Systems.