**SHAOCONG MA**

**CONTACT INFORMATION**

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**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: Customized PyTorch Optimizer and Adversarial Attack**

* Contributed to the experiments in the paper: A Convergent Single-Loop Proximal-GDA Algorithm with Momentum for Nonconvex Minimax Optimization (Submitted to ICML 2021)
* Implemented a customized PyTorch Optimizer for training the regularized Wasserstein robustness model (WRM)
* Applied GAN to generate the attacking data to improve the model robustness.

**Garnet Problem Environment Simulator**

* Designed and implemented an environment similar to OpenAI *gym* to support multi-cores acceleration and large-scale simulations.
* Contributed to the experiments in two top-conference papers: [VRTDC](https://github.com/mshaocong/VRTDC) and [VR-greedy-GQ](https://github.com/mshaocong/VR-greedy-GQ)

**TEACHING EXPERIENCES**

Statistics; Statistics for Life Science; Statistics for Economics;

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