Zhang, Xiao (张潇)

BCI & ML Lab
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Research Interests

Deep learning, brain-computer interfaces, AI security.

Education

September 2018 - Now

M.Eng. - School of Artificial Intelligence & Automation, Huazhong University of Science & Technology

GPA: 90.3/100, **Rank**: 12/188 **Supervisor**: Prof. Dongrui Wu

September 2014 - June 2018

B.Eng. - School of Optical & Electronic Information, Huazhong University of Science & Technology

GPA: 3.91/4.0, **Rank**: 5/318 **Supervisor**: Prof. Danhua Cao

Publications

- X. Zhang and D. Wu, "Empirical Studies on the Properties of Linear Regions in Deep Neural Networks," in Proc. Int'l Conf. on Learning Representations (ICLR), Addis Ababa, Ethiopia, April 2020.
- X. Zhang, D. Wu, L. Ding, H. Luo, C-T Lin and T-P Jung, "Tiny Noise Can Make an EEG-Based Brain-Computer Interface Speller Output Anything," arXiv:2001.11569, February 2020.
- **X. Zhang** and D. Wu, "On the Vulnerability of CNN Classifiers in EEG-Based BCIs," IEEE Trans. on Neural Systems and Rehabilitation Engineering, vol. 27, no. 5, pp. 814-825, May 2019.
- Z. Liu*, X. Zhang*, D. Wu, "Universal Adversarial Perturbations for CNN Classifiers in EEG-Based BCIs," IEEE Trans. on Human-Machine Systems, 2019, submitted.
- X. Jiang, X. Zhang, D. Wu, "Active Learning for Black-Box Adversarial Attacks in EEG-Based Brain-Computer Interfaces," arXiv:1911.04338, Nov 2019.

Honors

2019	National scholarship for Postgraduates
2019	1st Place - China Brain-Computer Interface Competition
2018	"Outstanding Graduate" of HUST
2018	"Honor College Student" of Qiming College of HUST
2015	$2^{\rm nd}$ Place - The $7^{\rm th}$ Mathematics competition of Chinese College Students
2015	National Encouragement Scholarship

Skills

Programming Languages: Python, Java, MATLAB **Tools and Frameworks**: LATEX, TensorFlow, Keras, OpenCV