Fengyi Tang

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EDUCATION

MICHIGAN STATE UNIVERSITY
Ph.D. in Computer Science | Advisor: Jiayu Zhou — Aug. 2017 - Sept. 2021

UNIVERSITY OF CALIFORNIA SAN DIEGO
B.S. in Human Biology & M.S. in Biology — Sept. 2012 (B.S), Sept. 2014 (M.S.)

SELECTED PUBLICATIONS

- **Fengyi Tang**, Lifan Zeng, Fei Wang, and Jiayu Zhou (2020). "Adversarial Precision Sensing with Healthcare Applications". 2020 IEEE International Conference on Data Mining (**ICDM'20**).
- **Fengyi Tang**, Ikechukwu Uchendu, Fei Wang, Hiroko Dodge, Jiayu Zhou (2020). "Scalable Diagnostic Screening of Mild Cognitive Impairment Using AI Dialogue Agent". **Nature Scientific Reports**.
- **Fengyi Tang**., Betty HC Cheng (2020). "Protecting Temporal Signatures Using Synchronized Chaotic Circuits". Hawaiian International Conference of System Sciences 2020 (**HICSS-53**).
- **Fengyi Tang**, Cao Xiao, Fei Wang, Jiayu Zhou, and Li-wei H. Lehman (2019). "Retaining Privileged Information for Multi-Task Learning". In Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (**KDD '19**).
- Xi Zhang, **Fengyi Tang**, Hiroko Dodge, Jiayu Zhou, and Fei Wang (2019). "MetaPred: Meta-Learning for Clinical Risk Prediction with Limited Patient Electronic Health Records". **KDD'19**.

PROFESSIONAL EXPERIENCES

MACHINE LEARNING RESEARCH, ILLIDAN LAB
Michigan State University, East Lansing, MI — August 2017 - Present

- Developed a dialog system to identify language markers that can detect early-stage mild cognitive impairment.
- Thesis projects led to a $3.9M NIH grant awarded to the lab that was featured in local news.

RESEARCH COORDINATOR
Weill Cornell Medical College, New York, NY — May 2019 - August 2019

- Developed "adversarial precision sensing", a technique that leverages 2 competing neural nets to do personalized feature selection on a budget-constraint with non-i.i.d. data; led to a first-authored publication in ICDM 2020.

DATA SCIENCE SUMMER INTERN
MIT Laboratory of Computational Physiology, Cambridge, MA — May 2018 - August 2018

- Developed a novel method, "retaining privileged information" that enables sample-efficient multitask learning for neural nets; led to a first-authored publication in KDD 2019.

PRESENTATIONS AND INVITED TALKS

Audio & Linguistic Markers for MCI Prediction | Layton Aging & Alzheimer's Disease Center — July 15, 2021
Adversarial Precision Sensing | ICDM — November 17 – 20, 2020
Scalable Diagnostic Screening of MCI | Frontiers of AI-Assisted Care — September 18, 2019
Retaining Privileged Information for Multitask Learning | KDD — August 6 – 10, 2019
Temporal Feature Selection | American Physician Scientist Association — April 6, 2019

SKILLS

- Machine Learning: reinforcement learning, natural language processing, deep unsupervised learning
- Technical Environments: Python, Pytorch, Tensorflow / Keras, Flask, MySQL, HTML & CSS
- Functional Skills: project management, grant proposal writing, ML life cycle