Tianfan Fu

Contact

Computational Science and Engineering

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Georgia Institute of Technology

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RESEARCH INTERESTS Machine Learning for Healthcare, Natural Language processing, Deep Learning, Speech Processing,

Bayesian Statistics.

EDUCATION

Georgia Institute of Technology, Atlanta, US.

PhD candidate, Advisor: Jimeng Sun, Computer Science Program in Department of Computa-

tional Science and Engineering, August 2018 - Present.

Shanghai Jiao Tong University (SJTU), Shanghai, CHINA

M.S., Advisor: Zhihua Zhang, Computer Science and Technology, Sept 2015 - April 2018.

Shanghai Jiao Tong University (SJTU), Shanghai, CHINA

B.E., Electronics and Electric Engineering (IEEE Honor Class), Sept 2011 - June 2015.

RESEARCH EXPERIENCE Research Assistant, Speech Lab, Shanghai Jiao Tong University (SJTU)

Advisor: **Kai Yu**, June 2013 - Jan 2015.

Research topic: application of deep learning on speech recognition and speaker verification.

Research Assistant, Learning and Optimization Group, Shanghai Jiao Tong University (SJTU)

Advisor: **Zhihua Zhang**, Feb 2015 - May 2017. Research topic: Bayesian computation and inference.

Research Assistant, SunLab, Georgia Institute of Technology

Advisor: Jimeng Sun, Sept 2018 - Present.

Research topic: Drug Discovery, Predictive Phenotyping.

Industry Experience Research Intern, Machine Learning Group, Disney Research Institute, Pittsburgh

Advisor: Cheng Zhang & Stephan Mandt, Sept 2017 - Dec 2017.

Research topic: word/user embeddings algorithm

Intern, Dialogue System Group, AISPEECH, Suzhou, China

Project: Text Similarity for QA system, Feb 2018 - June 2018.

Publications

Tianfan Fu*, Tian Gao*, Cao Xiao, Tengfei Ma, Jimeng Sun: PEARL: Prototype Learning via Rule Learning. ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB) 2019. (**Oral**)

Tianfan Fu*, Trong Nghia Hoang*, Cao Xiao, Jimeng Sun: DDL: Deep Dictionary Learning for Predictive Phenotyping. International Joint Conferences on Artificial Intelligence (IJCAI 2019). (Oral)

Tianfan Fu, Cheng Zhang, Stephan Mandt: Continuous Word Embedding Fusion via Spectral Decomposition. SIGNLL Conference on Natural Language Learning (**CoNLL** 2018). (**Oral**)

Shenjian Zhao, Yujun Li, **Tianfan Fu**, Kai Li, Zhihua Zhang: **Chinese Translation of Deep Learning** (Goodfellow et al). Sales volume: **100,000+**.

Tianfan Fu, Zhihua Zhang: CPSG-MCMC: Clustering-Based Preprocessing method for Stochastic Gradient MCMC. **AISTATS** 2017: 841-850.

Tianfan Fu, Luo Luo, Zhihua Zhang: Quasi-Newton Hamiltonian Monte Carlo. Conference on Uncertainty in Artificial Intelligence, **UAI** 2016.

Yuan Liu, Yanmin Qian, Nanxin Chen, **Tianfan Fu**, Ya Zhang, Kai Yu: Deep feature for text-dependent speaker verification. **Speech Communication** 73: 1-13, 2015. (Citation: **107**)

Wei Li, **Tianfan Fu**, Jie Zhu: An improved i-vector extraction algorithm for speaker verification. **EURASIP J. Audio, Speech and Music Processing** 2015: 18, 2015.

Yuan Liu, **Tianfan Fu**, Yuchen Fan, Yanmin Qian, Kai Yu: Speaker verification with deep features. International Joint Conference on Neural Networks, **IJCNN** 2014: 747-753. (**Oral**)

Tianfan Fu, Yanmin Qian, Yuan Liu, Kai Yu: Tandem deep features for text-dependent speaker verification. **INTERSPEECH** 2014: 1327-1331. (**Oral**, Citation: **29**)

RELATED SKILLS

- graduate Major GPA: 3.68/4.0, undergraduate Major GPA: 3.48/4.0
- Programming Skills: Python, C++, Bash(awk, sed, etc.), latex, git, Pytorch, Tensorflow

AWARDS

- 2014 Shanghai Jiao Tong University Academic Excellence scholarship (Top 10%)
- 2016 SJTU Academic Excellence Scholarship Class-A (Top 15%)
- 2017 CS Graduates Education & Development Fund and Yang Yuanqing Education Fund (Top-3 in all graduate students in CS Department).

ACADEMIC INVOLVEMENT

- 2016 UAI Travel Award & Volunteer
- 2016 NIPS Reviewer (5 papers)
- 2017 AAAI sub-reviewer (2 papers)
- 2017 AISTATS Travel Award
- 2018 AAAI Reviewer (1 paper)

TEACHING

- 2016 Prof. Zhihua Zhang's course "Statistical Machine Learning" TA
- 2018 Prof. Bo Yuan's course "Artificial Intelligence" TA
- \bullet 2019 Prof. Jimeng Sun's course "Big Data Analytics for Healthcare " TA