

## Tianfan Fu

---

CONTACT INFORMATION	Computational Science and Engineering Atlanta, US <i>Voice:</i> +1 4706013173	Georgia Institute of Technology <i>Email:</i> futianfan@gmail.com & tfu42@gatech.edu <i>Homepage:</i> futianfan.github.io
RESEARCH INTERESTS	Machine Learning for Healthcare, Natural Language processing, Deep Learning, Speech Processing, Bayesian Statistics.	
EDUCATION	<b>Georgia Institute of Technology</b> , Atlanta, US.  PhD candidate, Advisor: <b>Jimeng Sun</b> , Computer Science Program in Department of Computational Science and Engineering, August 2018 - Present.  <b>Shanghai Jiao Tong University (SJTU)</b> , Shanghai, CHINA  M.S., Advisor: <b>Zhihua Zhang</b> , Computer Science and Technology, Sept 2015 - April 2018. <b>Shanghai Jiao Tong University (SJTU)</b> , Shanghai, CHINA  B.E., Electronics and Electric Engineering (IEEE Honor Class), Sept 2011 - June 2015.	
RESEARCH EXPERIENCE	<b>Research Assistant</b> , Speech Lab, Shanghai Jiao Tong University (SJTU)  Advisor: <b>Kai Yu</b> , June 2013 - Jan 2015. Research topic: application of deep learning on speech recognition and speaker verification. <b>Research Assistant</b> , Learning and Optimization Group, Shanghai Jiao Tong University (SJTU)  Advisor: <b>Zhihua Zhang</b> , Feb 2015 - May 2017. Research topic: Bayesian computation and inference. <b>Research Assistant</b> , SunLab, Georgia Institute of Technology  Advisor: <b>Jimeng Sun</b> , Sept 2018 - Present. Research topic: Drug Discovery, Predictive Phenotyping.	
INDUSTRY EXPERIENCE	<b>Research Intern</b> , Machine Learning Group, Disney Research Institute, Pittsburgh  Advisor: <b>Cheng Zhang &amp; Stephan Mandt</b> , Sept 2017 - Dec 2017. Research topic: word/user embeddings algorithm  <b>Intern</b> , Dialogue System Group, AISPEECH, Suzhou, China  Project: Text Similarity for QA system, Feb 2018 - June 2018.	

## PUBLICATIONS

Kexin Huang, **Tianfan Fu**, Cao Xiao, Lucas M. Glass, and Jimeng Sun. DeepPurpose: a Deep Learning Based Drug Repurposing Toolkit. <https://arxiv.org/pdf/2004.08919.pdf>. **contribute to study of COVID-19**.

**Tianfan Fu**, Cao Xiao, Jimeng Sun: CORE: Automatic Molecule Optimization using Copy & Refine Strategy. Accepted by Association for the Advancement of Artificial Intelligence (**AAAI**) 2020, New York, NY, USA. (**Oral**)

**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, Niagara Fall, NY, USA. (**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), Macau, China. (**Oral**)

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

Shenjian Zhao, Yujun Li, **Tianfan Fu**, Kai Li, Zhihua Zhang: **Chinese Translation of “Deep Learning (Goodfellow et al)”**. Sales volume: receiving **140,000+** comments in [jd.com](http://jd.com).

**Tianfan Fu**, Zhihua Zhang: CPSG-MCMC: Clustering-Based Preprocessing method for Stochastic Gradient MCMC. **AISTATS** 2017: 841-850, Lauderdale, FL, USA. (**Poster**)

**Tianfan Fu**, Luo Luo, Zhihua Zhang: Quasi-Newton Hamiltonian Monte Carlo. Conference on Uncertainty in Artificial Intelligence, **UAI** 2016, New York, NY, USA. (**Poster**)

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.

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, Beijing, China (**Oral**)

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

RELATED SKILLS	<ul style="list-style-type: none"> <li>• Programming Skills: Python, C++, Bash(awk, sed, etc.), latex, git, Pytorch, Tensorflow</li> </ul>
AWARDS	<ul style="list-style-type: none"> <li>• 2014 Shanghai Jiao Tong University Academic Excellence scholarship (Top 10%)</li> <li>• 2016 SJTU Academic Excellence Scholarship Class-A (Top 15%)</li> <li>• 2017 CS Graduates Education &amp; Development Fund and Yang Yuanqing Education Fund (Top-3 in all graduate students in CS Department).</li> </ul>
ACADEMIC INVOLVEMENT	<ul style="list-style-type: none"> <li>• 2016 UAI Travel Award &amp; Volunteer</li> <li>• 2016 NIPS Reviewer (5 papers)</li> <li>• 2017 AAAI sub-reviewer (2 papers)</li> <li>• 2017 AISTATS Travel Award</li> <li>• 2018 AAAI Reviewer (1 paper)</li> <li>• 2020 IEEE Journal of Biomedical and Health Informatics (<b>JBHI</b>) Reviewer (1 paper)</li> <li>• 2020 KDD sub-reviewer (2 papers)</li> <li>• 2020 IEEE Transactions on Cybernetics reviewer (1 paper)</li> <li>• 2020 ICCCN (The 29th International Conference on Computer Communications and Networks) Program Committee Member and reviewer.</li> </ul>
TEACHING	<ul style="list-style-type: none"> <li>• 2016 Spring Prof. Zhihua Zhang’s course “Statistical Machine Learning” TA</li> <li>• 2018 Spring Prof. Bo Yuan’s course “Artificial Intelligence” TA</li> <li>• 2019 Fall Prof. Jimeng Sun’s course “Big Data Analytics for Healthcare” TA</li> <li>• 2020 Spring Prof. Jimeng Sun’s course “Big Data Analytics for Healthcare” TA</li> </ul>