

Education

Stony Brook University (SBU)

PH.D. IN COMPUTER SCIENCE

- Excellence Fellowship for 3 years

Stony Brook, U.S.A

Aug. 2019 - PRESENT

Nanjing University (NJU)

M.SC. IN COMPUTER SCIENCE

- GPA: 92.5/100
- Advisor: Prof. Zhi-Hua Zhou

Nanjing, China

Sep. 2015 - Jun. 2018

Huazhong University of Science and Technology (HUST)

B.ENG. IN AUTOMATION

- GPA: 91.5/100 Rank: 1/26 (*elite program of Automation*)
- Advisor: Prof. Shan Tan
- Outstanding Undergraduate Thesis Award of HUST and Hubei Province

Wuhan, China

Sep. 2011 - Jun. 2015

Publications

JOURNAL & CONFERENCE ARTICLES

- [1] **Tao Sun**, Zhi-Hua Zhou. Structural Diversity for Decision Tree Ensemble Learning. *Frontiers of Computer Science*, 2018, 12(3): 560-570.
- [2] **Tao Sun**, Nanbo Sun, Jing Wang, Shan Tan. Iterative CBCT Reconstruction Using Hessian Penalty. *Physics in Medicine and Biology*, 2015, 60(5): 1965-1987.
- [3] Qi Shi, Nanbo Sun, **Tao Sun**, Jing Wang, Shan Tan. Structure-adaptive CBCT Reconstruction Using Weighted Total Variation and Hessian Penalties. *Biomedical Optics Express*, 2016, 7(9): 3299-3322.
- [4] Nanbo Sun, **Tao Sun**, Jing Wang, Shan Tan. CBCT Reconstruction via a Penalty Combining Total Variation and Its Higher-degree Term. In: *SPIE Medical Imaging*, 2015, 1-9.
- [5] **Tao Sun**, Yanan Liu, Nanbo Sun, Nilesh Mistry, Shan Tan. Iterative Reconstruction Techniques to Enable Intrinsic Respiratory Gated CT in Mice. In: *AAPM Annual Meeting*, 2014. (Abstract, Snap Oral presentation)
- [6] **Tao Sun**, Nanbo Sun, Jing Wang, Shan Tan. Hessian-Based Norm Penalty for Weighted Least-Square CBCT Reconstruction. In: *AAPM Annual Meeting*, 2014. (Abstract, Snap Oral presentation)

Experience

Department of Computer Science at Stony Brook University

TEACHING ASSISTANT

- Artificial Intelligence for undergraduate by Prof. Anita Wasilewska.

Stony Brook, U.S.A

Aug. 2019 - PRESENT

AI Department at Ant Financial

ALGORITHM ENGINEER

- Built recommendation algorithms for coupons in Alipay mobile application based on tensorflow.
- Built user financial portrait including sensitivity to prices and willingness to loan, etc.

Hangzhou, China

Jul. 2018 - Jul. 2019

Department of Computer Science and Technology at Nanjing University

RESEARCH ASSISTANT

- Worked on one very fundamental problem in ensemble learning: how to understand and measure ensemble diversity.
- Proposed to consider structural diversity, which motivated a new direction to the research of ensemble diversity.

Nanjing, China

Sep. 2016 - Jun. 2018

NLP Department at Baidu

INTERN

- Built the recommender system for news push notification in Baidu mobile application.
- To serve hundreds of millions of users, we proposed to learn a tree model for user grouping and a deep hash model for fast searching.

Beijing, China

Sep. 2017 - Dec. 2017

School of Automation at Huazhong University of Science and Technology

RESEARCH ASSISTANT

- Studied the algorithms for reconstructing medical images from projection data.
- Proposed a Hessian penalty to alleviate the stair-case effect of the total variation penalty.
- Studied the utility of iterative reconstruction method to enable intrinsic respiratory gating in small-animal CT.

Wuhan, China

Dec. 2012 - Jun. 2015

Honors & Awards

2019	Excellence Fellowship (for 3 years)	SBU
2015	First-class Academic Scholarship	NJU
2015	Outstanding Undergraduate Thesis Award	HUST & Hubei Province
2014	National Endeavor Scholarship	MOE of China
2012	National Undergraduate Scholarship	MOE of China

Professional Activities

Reviewer SISAP 2017 (International Conference on Similarity Search and Applications)
Information Fusion, Elsevier
Swarm and Evolutionary Computation, Elsevier

Programming Skills

Language Python, C/C++, JAVA, MATLAB, \LaTeX
Tool Tensorflow, Weka, XGBoost, Scikit-learn