

XIYAO FU 傅熙尧

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EDUCATION

University of Pittsburgh 09/2021 – 08/2025 (expected)

- Ph.D. in ECE Pittsburgh, PA, USA
- Advisor: Dr. Liang Zhan
- Overall GPA: 3.938/4.0

University of Electronic Science and Technology of China 09/2013-07/2017

- BE in ECE Chengdu, China
- Overall GPA: 3.76/4.0; Major GPA: 3.93/4.00
- Thesis: A CBIR System Based on Zero-Shot Hashing

WORK EXPERIENCE

Research Assistant, ECE Swanson, UPitt 09/2021-present

- Advisor: Dr. Liang Zhan
- Focusing on researches in medical image segmentation (by graph neural networks and self-attention-based methods in single-modal/multi-modal scenarios).

Research Assistant, Center for Future Media, UESTC 07/2017-12/2020

- Advisor: Dr. Yang Yang
- Focusing on information retrieval (especially deep hashing) and transfer learning (especially zero-shot learning).

TEACHING

Teaching Assistant, ECE Swanson, UPitt 09/2022-present

Course: Digital Circuits and Systems (ECE 0201)

PUBLICATIONS

- **3D Bi-Directional Transformer UNet for Medical Image Segmentation.** Xiyao Fu, Zhexian Sun, Haoteng Tang, Hansong Gao, Eric Zou, Heng Huang, Yong Wang, Liang Zhan. Frontiers in Big Data (to appear), 2022.
- **Signed graph representation learning for functional-to-structural brain network mapping.** Haoteng Tang, Lei Guo, Xiyao Fu, Yalin Wang, Scott Mackin, Olusola Ajilore, Alex D Leow, Paul M Thompson, Heng Huang, Liang Zhan. Medical Image Analysis (MIA), 2022.
- **Contrastive Brain Network Learning via Hierarchical Signed Graph Pooling Model.** Haoteng Tang, Guixiang Ma, Lei Guo, Xiyao Fu, Heng Huang, Liang Zhan. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2022.
- **Functional2Structural: Cross-Modality Brain Networks Representation Learning.** Haoteng Tang, Xiyao Fu, Lei Guo, Yalin Wang, Scott Mackin, Olusola Ajilore, Alex Leow, Paul Thompson, Heng Huang, Liang Zhan. arXiv:2205.07854
- **Hierarchical Brain Embedding Using Explainable Graph Learning.** Haoteng Tang, Lei Guo, Xiyao Fu, Benjamin Qu, Paul M Thompson, Heng Huang, Liang Zhan. International Symposium on Biomedical Imaging

(ISBI), 2022

- *A hierarchical graph learning model for brain network regression analysis*. Haoteng Tang, Guixiang Ma, Lei Guo, Xiyao Fu, Heng Huang, Liang Zhan. Frontiers in Neuroscience, 2022
- *Supervised Hashing with Recurrent Scaling*. Xiyao Fu, Yi Bin, Zheng Wang, Si Chen. 3rd Asia Pacific Web and Web-Age Information Management Joint Conference on Web and Big Data (APWeb-WAIM), 2019_
- *BMC@MediaEval 2017 Multimedia Satellite Task via Regression Random Forest*. Xiyao Fu, Yi Bin, Liang Peng, Jie Zhou, Yang Yang, Hengtao Shen. MediaEval, CEUR Workshop Proceedings, Vol. 1984 (2017)
- *CFM@MediaEval 2017 Retrieving Diverse Social Images Task via Re-Ranking and Hierarchical Clustering*. Liang Peng, Yi Bin, Xiyao Fu, Jie Zhou, Yang Yang, Hengtao Shen. MediaEval, CEUR Workshop Proceedings, Vol. 1984 (2017)

SERVICE

Reviewer, Biomedical Engineering(J)

01/2022-present

PATENTS

- **An Image Retrieval Technique Using DRSH**. (Applying) Based on paper Supervised Hashing with Recurrent Scaling. 06/2019

SKILLS

- **PROGRAMMING:** Python, Matlab, Verilog, Latex
- **Others:** Powerpoint, Linux, Word, Ubuntu
- **Languages:** Mandarin (Native), English (Advanced), Germany (Beginner)

HONORS AND AWARDS

- First-Class People's Scholarship, UESTC 09/2017
- Honorable Mention, MCM/ICM 02/2016
- Meritorious Winner, Mathematical Contest in Modeling of UESTC 06/2015

MISC

- TOEFL iBT: 108 (Reading: 29, Listening:29, Speaking: 23, Writing: 27) 1/2021
- GRE: 327 (Verbal: 157, Quantitative: 170, Analytical Writing: 3.0) 09/2017