Yizhou "Harry" Tian

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Research Interests

My research interest lies in in Human-AI interaction (HAI). I aim to building more effective and responsible human-AI collaboration by leveraging AI that model humans. Currently, I am interested in (i) designing human-compatible decision support systems and AI teaching frameworks and (ii) the gap between HAI experiments on laypeople and practitioners.

Education

Purdue University June 2022 –
Ph.D. in Computer Science *West Lafeyette, IN*

University of Chicago Sept 2021 – Dec 2022
M.S. in Computer Science, Pre-Doctoral program *Chicago, IL*

- *Relevant Coures*: Fundamentals of Deep Learning, Natural Language Processing, Mathematical Foundations of Machine Learning, Human-Centered Machine Learning

Carleton College Sept 2017 – June 2021
B.A. in Computer Science and Linguistics *Northfield, MN*

Research Experience

Chicago Human+AI Lab, University of Chicago Sep 2021 –
Advisor: Chenhao Tan *Chicago, IL*

- Designed case-based decision support system using human-compatible representations, ran human studies on natural image and medical image datasets. [1, 2]
- *Work in progress*: Building AI-driven tutorial for radiology residents training on prostate cancer diagnosis. Experimenting on contrastive learner models.

REU at University of Minnesota Jun – Aug 2020
Advisor: Zhiwei Steven Wu *Virtual*

- Experimented on hyperparameter optimization methods on differentially private algorithms and concluded that Random Search outperforms Bayesian Optimization in the general case.
- Created and presented research poster in virtual National REU Poster Symposium.

REU at University of North Texas Jun – Aug 2019
Denton, TX

- Learned and experimented with neural networks and text encoders.

References

[1] Han Liu, **Yizhou Tian**, Chacha Chen, Shi Feng, Yuxin Chen, and Chenhao Tan. Learning human-compatible representations for case-based decision support. In *ICLR*, 2023. **To Appear**.

[2] Han Liu, **Yizhou Tian**, Chacha Chen, Shi Feng, Yuxin Chen, and Chenhao Tan. Towards effective case-based decision support with human-compatible representations. In *Proceedings of the 1st ICML 2022 Workshop on Human-Machine Collaboration and Teaming*, 2022.

Honors & Awards

Ranked 6th Place in the PI-CAI Prostate Cancer AI Imaging Grand Challenge *Nov 2022*

Industry Experience

FormFast Nov – Dec 2022
Software Engineer Extern *St. Louis, MO*

- Shadowed developers in working process, learned software development basics
- Created blood bank management Windows App using C#

JNC International Summer School June – Aug 2018
Latin American History course Teaching Assistant *Guangzhou, China*

Skills

Languages: Python, HTML5, C, Java,
Frameworks & Tools: Pytorch, Django, Numpy, Pandas, git

Study abroad experience

AIT Budapest Sept – Dec 2019
Computer Science Study Abroad Program *Budapest, Hungary*

LSE-PKU Summer School August 2018
Coursework: Big Data: Data Analytics for Business and Beyond *Beijing, China*