Yizhou "Harry" Tian └ 612-787-8261 | tian253@purdue.edu | harry-tian.github.io

Research Interests

My research interest lies in in human-AI collaboration. I aim to build more effective and responsible human-AI collaboration by leveraging human modeling and human-compatible AI.

EDUCATION

| Ph.D. in Computer Science, Purdue University | 2023 - Present |
|--|----------------|
| M.S. in Computer Science, University of Chicago | 2022 |
| B.A. in Computer Science and Linguistics, Carleton College | 2021 |

RESEARCH EXPERIENCE

| Purdue University, Ph.D. | 2023 - Present | |
|--|--------------------|--|
| Advisor: Ming Yin | West Lafayette, IN | |
| • Work in progress: Investigating human-aligned AI explanations for human-AI decision-making. | | |
| University of Chicago, Chicago Human+AI Lab | 2021 - 2023 | |
| 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. [2] | | |
| • Work in progress: Developing more effective machine teaching protocols by modeling humans as contrastive learning models and KNN. [1] | | |
| University of Minnesota, REU | Summer 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. | | |
| University of North Texas, REU | Summer 2019 | |
| | Denton, TX | |
| • Learned and experimented with neural networks and text encoders. | | |

PUBLICATIONS

- [1] *Han Liu, ***Yizhou Tian**, Chaoqi Wang, Shi Feng, Yuxin Chen, and Chenhao Tan. Contrastive knns as learners in machine teaching.
- [2] 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.

TEACHING EXPERIENCE

Teaching assistant positions:Purdue University• CS 17600: Data Engineering In PythonJNC International Summer School• Latin American History

Honors & Awards

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

INDUSTRY EXPERIENCE

FormFast

Software Engineer Extern

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

PROFESSIONAL SERVICE

Conference reviewers for NeurIPS.

Relevant Skills

Programming Languages: Python, Tex, HTML5, C, Java, C# **Frameworks & Tools**: Pytorch, Django, Numpy, Pandas, git, LaTex

STUDY ABROAD EXPERIENCE

AIT BudapestFall 2019Computer Science Study Abroad ProgramBudapest, HungaryLSE-PKU Summer SchoolSummer 2018Coursework: Big Data: Data Analytics for Business and BeyondBeijing, China

Fall 2018 St. Louis, MO