

ZIRUI CHENG

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EDUCATION

Tsinghua University

B.E. in Computer Science and Technology
B.A. in Economics and Finance
GPA: 3.87/4.00

2024 (Expected)

Beijing, China

INTERESTS

Human-Computer Interaction, Artificial Intelligence, Software Engineering, Data Visualization.

PUBLICATIONS

Peer-reviewed papers

- [1] Modeling the Trade-off of Privacy Preservation and Activity Recognition on Low-Resolution Images
Yuntao Wang*, Zirui Cheng*, Xin Yi, Yan Kong, Xueyang Wang, Xuhai Xu, Yukang Yan, Chun Yu, Shwetak Patel, Yuanchun Shi. (* indicates co-first author)
CHI 2023 – 2023 ACM CHI Conference on Human Factors in Computing Systems.

EXPERIENCE

Carnegie Mellon University

2023

Research Intern at Human-Computer Interaction Institute, Advisor: Kenneth Holstein

Pittsburgh, PA, USA

- Conducted quantitative analysis of evaluation studies for a system enabling community-driven data curation for AI evaluation in online communities.
- Implemented data visualization to analyze datasets obtained from evaluation studies with a focus on understanding social interactions and model evaluations within the system.

University of California San Diego

2023

Research Intern at Halicioğlu Data Science Institute, Advisor: Haojian Jin

La Jolla, CA, USA

- Developed a system powered by large language models to assist teachers in generating multiple-choice questions to replace traditional open-ended questions.
- Conducted user studies to investigate the feasibility of multiple-choice questions generated from large language models in assessing conceptual learning outcomes.

SenseTime Group Inc.

2022

Research Intern at Natural Language Processing Group, SenseTime Research

Beijing, China

- Proposed a large language model – TeacherLM-7.1B with capabilities of explaining the fundamentals, chain of thoughts, and common mistakes for most natural language processing samples.
- Validated the data enhancement capability of the prompts generated from TeacherLM-7.1B through instruction finetuning on various dataset.

Tsinghua University

2022

Research Intern at Department of Computer Science and Technology, Advisor: Yuntao Wang

Beijing, China

- Proposed a framework for modeling the trade-off between privacy preserving and activity recognition on visual data under different resolutions.
- Investigated the effect of image resolution on both human and machine's performance on activity recognition task and visual privacy awareness through user studies and computer vision experiments.

HONORS

Research Excellence Scholarship, Tsinghua University, 2023

Social Service Excellence Scholarship, Tsinghua University, 2023

Social Service Excellence Scholarship, Tsinghua University, 2022

Academic Performance Excellence Scholarship, Tsinghua University, 2021

Comprehensive Excellence Scholarship (Top 10%), Tsinghua University, 2020

Freshmen Scholarship (Top 10%), Tsinghua University, 2019

SKILLS

Programming: Python, C/C++, JavaScript/CSS/HTML, Java, R, Matlab, Verilog, VHDL.

Machine Learning: PyTorch, TensorFlow.

Software Engineering: React, Vue, Django.

Languages: Chinese, English (TOEFL 103), German.