ZIRUI CHENG

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EDUCATION

Tsinghua University   **2024 (Expected)**
B.E. in Computer Science and Technology   *Beijing, China*
B.A. in Economics and Finance
GPA: 3.87/4.00

INTERESTS

Human-Computer Interaction, Artificial Intelligence, Software Engineering.

PUBLICATIONS

[C.1]   Modeling the Trade-off of Privacy Preservation and Activity Recognition on Low-Resolution Images
Zirui Cheng*, Yuntao Wang*, Xin Yi, Yan Kong, Xueyang Wang, Xuhai Xu, Yukang Yan, Chun Yu, Shwetak Patel, Yuanchun Shi.
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 a system for community-driven data curation for AI evaluation in online communities.
- Implemented data visualization of datasets that can reflect community values in online communities.

University of California San Diego   **2023**
Research Intern at Halıcıoğlu Data Science Institute, Advisor: Haojian Jin   *La Jolla, CA, USA*

- Developed an interactive system powered by large language models to assist teachers in generating multiple-choice questions based on multiple concepts.
- Proposed the Explore-Validate-Generate interaction pattern to transform an open-ended question into a series of multiple-choice questions.
- Conducted user studies to investigate the feasibility of multiple-choice questions generated from large language models in assessing conceptual learning outcomes.

SenseTime Technology   **2022**
Research Intern at Natural Language Processing Group   *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: Yuanchun Shi & 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

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.