

ZIRUI CHENG

Department of Computer Science and Technology, Tsinghua University

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Education

Department of Computer Science and Technology, Tsinghua University

Beijing, China

Major in Computer Science and Technology, Minor in Economics and Finance

Jul 2021 - Current

- **GPA:** 3.87/4.00
- **Courses:** Software Engineering (A), Artificial Neural Networks (A), Introduction to Artificial Intelligence (A-), Introduction to Database Management System (A), Object-Oriented Programming (A), Cybersecurity Fundamentals (A).

School of Economics and Management, Tsinghua University

Beijing, China

Major in Economics and Finance, Minor in Computer Science and Technology

Aug 2019 - Jun 2021

- **Courses:** Econometrics (A), Intermediate Microeconomics (A-), Intermediate Macroeconomics (A-), Principles of Politics (A+), Introductory Psychology (A-), Corporate Finance (A-).

Interests

Human-AI Interaction, Software Engineering, Security and Privacy.

Publications

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

Research Experience

University of California San Diego

La Jolla, California, USA

Halicioğlu Data Science Institute, Advisor: Haojian Jin

2023

- Propose an AI-infused system to generate a set of multiple-choice questions for knowledge assessment so as to mitigate the cheating risks of open-ended questions in the face of generative AI.
- Introduce the Explore-Validate-Generate interaction design pattern to work with generative AI in multiple-choice question generation tasks.
- Conduct user studies to investigate the feasibility of generative AI in educational tasks and compare the usability of multiple-choice questions generated by large language models.

SenseTime Technology

Beijing, China

Natural Language Processing Group

2022

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

Tsinghua University

Beijing, China

Department of Computer Science and Technology, Advisor: Yuntao Wang

2022

- Propose a framework with adjustable parameters for modeling the trade-off of visual privacy preserving activity recognition under different resolutions using images and videos collected from multimodal applications.
- Investigate the effect of the 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

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| 2022 | Social Service Excellence Scholarship , Tsinghua University | Beijing, China |
| 2021 | Academic Performance Excellence Scholarship , Tsinghua University | Beijing, China |
| 2020 | Overall Excellence Scholarship (top 10%) , Tsinghua University | Beijing, China |

Skills

Programming Python, C/C++, JavaScript, Java, R, SQL, Matlab.

Frameworks React, Django, Vue

Languages Chinese (native proficiency), English (professional proficiency, TOEFL: 102).