ZHENGTAO XU

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EDUCATION BACKGROUND

School of Computing, National University of Singapore **Aug 2023 - Present**
Master of Computing (AI Specialisation)

- GPA: 4.67/5.0
- Main Courses: Uncertainty Modelling In AI (A), Algorithmic Mechanism Design (A), Knowledge Discovery and Data Mining (A), Neural Networks and Deep Learning (A-), Advanced Topics in Human-computer Interaction (A-)

Chu Kochen Honors College, Zhejiang University **Sep 2019 - Jun 2023**
Bachelor of Engineering in Computer Science and Technology

- GPA: 3.79/4.0; 87.29/100
- Ranking: Top 5% among 226 students
- Main Courses: Fundamentals of Data Structures (91), Python Programing (95), Objected-Oriented Programming (86), Cryptography (97), Computer Graphics (89), Computer Architecture (92), Data Analysis and Algorithm Design (93), Operating System (92), Computer Networks (86), Technology of Multimedia (91), Advanced in Computer Graphics (97), Computational Photography (91), Compiler Principle (88), etc.
- Honors and Awards: First Class Scholarship, Outstanding Student for three consecutive years

RESEARCH & PROJECTS

Enhancing Thematic Learning through Generative AI **May 2024 - Present**
Advisor: Prof. Yi-Chieh Lee

- Designed a system utilizes storytelling with Generative AI for thematic learning, aiming to enhance personalization for learners from diverse backgrounds
- Plan to recruit 200+ participants to test system and understand its impact on learning performance and experience
- This work is planned to be submitted to CHI 2025 in Sep 2024

Uncertainty in AI-assisted Decision Making **Nov 2023 - Jun 2024**
(Master's Dissertation) Advisor: Prof. Yi-Chieh Lee

- Designed a study to explore how different levels of natural language uncertainty in large language models, like GPT-4, impact user interactions with AI during decision-making
- Recruited 156 participants for a between-condition study to investigate the impact on user trust, satisfaction, and performance during human-AI collaboration
- This work was submitted to Computers in Human Behavior in June 2024 and is currently under review

Unbounded Scene Representation based on NeRF **Sep 2022 - May 2023**
(Undergraduate Thesis) Advisor: Prof. Tianjia Shao

- Wrote a literature review on neural radiance fields to explore research directions and reproduced the results of the classical NeRF paper
- Conducted a research related to Mip-NeRF 360, expected to be applied to unbounded large-scale scene reconstruction

3D Point Cloud Denoising using Deep Learning Methods **Mar 2021 - Jun 2022**
(Student Research Training Program) Advisor: Prof. Weiwei Xu

- Investigated traditional point cloud denoising methods and existing deep learning approaches, and wrote a review of mainstream denoising methods for point clouds

- Reproduced previous paper and improved network performance by increasing the perceptual domain, iteratively optimizing the results and adding real data sets

INTERNSHIP

AI Algorithm Intern **Dec 2022 - Apr 2023**

ZAOWUYUN Inc.

- Developed algorithms for virtualizing real objects using the NeRF method, contributing online 3D marketing design tool for users
- Provided technical support for exploring AI-generated 3D modelling algorithms, including ROCA, RfDNet, and Scan2CAD, and conducted sample testing
- Cooperated team members of Zhejiang University IABC Lab in jointly developing a big data-driven design engine, including intelligent design systems, intelligent interaction systems, digital business and services, and digital cultural creativity

PUBLICATION

- **Xu, Z.**, Song, T., Lee, Y. (2024). Confronting Verbalized Uncertainty: Understanding How Different Levels of AI Uncertainty Influence User Reactions in a Word Guessing Game. Computers in Human Behavior (First Author, under review)
- Peng, L., Qian, J., **Xu, Z.**, Xin, Y., & Guo, L. (2023). Multi-label hashing for dependency relations among multiple objectives. IEEE Transactions on Image Processing, 32, 1759-1773. (Third Author)

LEADERSHIP

Planning Department Chief **Sep 2020 - Sep 2021**

Secretariat of Alumni Association, Zhejiang University

- Organized alumni lecture series, interviews with alumni to share success stories
- Coordinated alumni homecoming events and published tweets on WeChat official account

OTHERS

- Computer skills: Proficient in C/C++, Python, MATLAB, SQL, LaTeX, Arduino, Shell. Familiar with Verilog, Java, JavaScript, LabVIEW, assembly language
- Languages: Mandarin (native), English (TOEFL: 100, GRE: 328+4.0)
- Interests: fitness, soccer, travelling