

Kangrui Chen

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EDUCATION

Southern University of Science and Technology, China	09/2021 - Present
<i>Undergraduate Computer Science and Technology (Honored Turing Class)</i>	Current GPA: 3.76/4.0
Michigan State University, US	04/2024 - 08/2024
<i>Intern Student Supervised by Jiliang Tang, Data Science and Engineering Lab</i>	

RELEVANT QUALIFICATION

Key Courses: Calculus, Linear Algebra, Introduction to Artificial Intelligence, Probability and Statistics, Data Structures and Algorithm Analysis, Discrete Mathematics, Algorithm Design and Analysis, Object Oriented Analysis Design, Artificial Intelligence, Machine Learning, Deep Learning

Honors:

- 2024 The Third Class of the Merit Student Scholarship
- 2023 The Third Class of the Merit Student Scholarship
- 2023 Outstanding Student Teaching Assistant
- 2023 Outstanding Senior Monitor
- 2022 The Third Class of the Merit Student Scholarship
- 2021 Admission Scholarship

PUBLICATION

1. Pengjie Shen, **Kangrui Chen**, Shulin He, Pengru Chen, Shuqi Yuan, He Kong, Xueliang Zhang, Zhong-Qiu Wang
Listen to Extract: Onset-Prompted Target Speaker Extraction
TASLP, In Submission
2. Jie Ren, **Kangrui Chen**, Chen Chen, Vikash Sehwag, Yue Xing, Jiliang Tang, Lingjuan Lyu
Self-Comparison for Dataset-Level Membership Inference in Large (Vision-)Language Model
WWW 2025 (Oral)
3. Jie Ren*, **Kangrui Chen***, Yingqian Cui, Shenglai Zeng, Hui Liu, Yue Xing, Jiliang Tang, Lingjuan Lyu
Six-CD: Benchmarking Concept Removals for Benign Text-to-image Diffusion Models
CVPR 2025

RESEARCH EXPERIENCE

LEXt	09/2024 - 01/2025
<ul style="list-style-type: none"> Proposed a highly-effective while extremely-simple algorithm for monaural target speaker extraction (TSE) by concatenating an enrollment utterance of the target speaker to the mixture signal at the waveform level. This simple approach produces strong TSE performance on multiple public datasets including WSJ0-2mix, WHAM! and WHAMR! 	

Self-Comparison for Dataset-Level MIA	08/2024 - 10/2024
<ul style="list-style-type: none"> Proposed a dataset-level membership Inference Self-Comparison Membership Inference (SMI), which can be widely apply to (vision-)language model. Leveraging the memorization sensitivity of DNN, the proposed method outperformed traditional MIA and dataset inference techniques when no prior knowledge of ground-truth member data is available. 	

Six-CD

04/2024 - 08/2024

- Proposed a comprehensive dataset for benchmarking concept removal on text-to-image diffusion models.
- Proposed a novel metric named "in-prompt retainability", which measures model's ability to express the rest concepts when removals are triggered.

Improved Co-Tracker

10/2023 - 01/2024

- Introduced a trick used by PIPs++ to improved long-term pixel-level point tracking ability.
- Proposed using optical flow as auxiliary guidance for co-track points selection.

Evox

07/2023 - 08/2023

- A distributed GPU-accelerated framework for scalable evolutionary computation.
- Contributed to the implementation of multi-objective optimization algorithms.

COURSE PROJECTS:

Blackboard Application with JavaScript, Python, Vue3, and Electron

AI Chat Bot Platform with JavaScript, Java, Python, and Hugging Face

Traffic Sign Recognizer using YOLOv8

Simplified Compiler on C99

HTTP Server on Python

CARP Solver using genetic algorithm

Reversi Player based on min-max search

Simple File System on Linux

Simplified Matrix Library on C++

Chess Game with GUI on Java

OTHER EXPERIENCE

Indie Game Full-Stack Audio Developer

Have been developing a UE5 3rd-person ACT game *Project: Seele* and undertaking Sound Design and Music Production

Teaching Assistant

Assisted teaching in CS111 (Introduction to C Programming) and CS205 (C/C++ Program Design) by answering questions as well as designing quizzes, assignments, projects, and exams.

Student Development Center of Zhixin College

Served as Senior Monitor, helping freshmen accommodate to campus life and study.

Astro Rave Club

Have been participating in performances and sharing relevant skills as the Head of Production and Performance Section.

Social Practice Volunteer

Volunteered in college events, environmental protection activities, half marathon competition, COVID-19 nucleic acid testing and blood donating.

STANDARDIZED TEST

TOEFL iBT: 103 (R29, L30, S22, W22)

TOEFL MyBest Scores: 104 (R29, L30, S23, W22)

SKILLS & INTERESTS

Languages: Chinese(native), English(fluent)

Programming: Python, C/C++, Java, Matlab, Markdown, L^AT_EX, JavaScript

Utilities: Git, Hugging Face, Pytorch

Interests: (Electronic) Music (Production & DJing), Drink Mixing, RPG, Sports