



# Kangrui Chen

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## EDUCATION

<b>Southern University of Science and Technology, China</b>	09/2021 - Present
<i>Undergraduate Computer Science and Technology (Honored Turing Class)</i>	<i>Current GPA: 3.76/4.0</i>
<b>Michigan State University, US</b>	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 Sehwal, 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

<b>LExt</b>	09/2024 - 01/2025
<ul style="list-style-type: none"> <li>• 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.</li> <li>• This simple approach produces strong TSE performance on multiple public datasets including WSJ0-2mix, WHAM! and WHAMR!</li> </ul>	
<b>Self-Comparison for Dataset-Level MIA</b>	08/2024 - 10/2024
<ul style="list-style-type: none"> <li>• Proposed a dataset-level membership Inference Self-Comparison Membership Inference (SMI), which can be widely apply to (vision-)language model.</li> <li>• 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.</li> </ul>	

## 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.

## Evovx

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

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### 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

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

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

## SKILLS & INTERESTS

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**Languages:** Chinese(native), English(fluent)

**Programming:** Python, C/C++, Java, Matlab, Markdown, L<sup>A</sup>T<sub>E</sub>X, JavaScript

**Utilities:** Git, Hugging Face, Pytorch

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