

Weiyuan Chen

Tel: (+86) 13824359821 | Email: cweiyuan9@gmail.com

Educational Background

Zhejiang University

Bachelor's Degree in Computer Science

Hangzhou, China

Sept. 2021 - June. 2025

- **GPA:** 3.87/4.0
- **GRE:** 330/340
- **TOEFL:** 116/120

Core Courses: Theory of Computation, Advanced Data Structures and Algorithms, Computer Architecture, Operating Systems, Computer Networks, Compiler Principles

Selective Course: Computational Precision Health, Stanford CS224n (online), CMU ANLP2024 (online)

Publications

AbGen: Evaluating Large Language Models in Ablation Study Design and Evaluation for 2024 Scientific Research

Yilun Zhao*, **Weiyuan Chen***, Zhijian Xu, Yixin Liu, Chengye Wang, Manasi Patwardhan, Lovekesh Vig, Arman Cohan [ACL main]

MMVU: A Comprehensive Benchmark For Expert-Level Multi-Disciplinary Video Understanding 2024 and Reasoning

Yilun Zhao*, Lujing Xie*, Haowei Zhang, **Weiyuan Chen**, Guo Gan, Yitao Long, Zhijian Xu, Chengye Wang, Chuhan Li, Ziyao Shanguan, Yixin Liu, Zhenwen Liang, Zhiyuan Hu, Chen Zhao, Arman Cohan [CVPR]

FinDVer: Explainable Claim Verification over Long and Hybrid-content Financial Documents 2024

Yilun Zhao, Yitao Long, Tintin Jiang, Chengye Wang, **Weiyuan Chen**, Hongjun Liu, Xiangru Tang, Yiming Zhang, Chen Zhao, Arman Cohan [EMNLP main]

Research Experience

Zhejiang University Knowledge Graph Lab (ZJUKG)

Advisor: Prof. Ningyu Zhang

Undergraduate Student Intern

Sept. 2024 - Present

Project: Enhancing LLM-generation safety through fine-tuning on tokenized data and explicit CoT decoding strategies

- **Tokenized Synthetic Data:** Add safety tokens to jail-breaking queries and response to derive tokenized synthetic data to promote LLMs to learn safety-relevant features and protect against malicious query.
- **Enhance LLMs Generation Safety:** Fine-tune base models such as Llama3-8b and vicuna-7b-hf on tokenized jail-breaking data to encourage LLMs to recognize self-generated unsafe content using explicit safety tokens.

Yale NLP Lab

Advisors: Prof. Arman Cohan, Prof. Chen Zhao at NYU and NYU Shanghai

Undergraduate Student Intern

Mar. 2024 - Sept. 2024

Project: AbGen: Evaluating Large Language Models in Ablation Study Design and Evaluation for Scientific Research

- **Retrieval-based Scientific Data:** Synthesize data used for fine-tuning from web-crawled scientific literature tailored explicitly based on research context and reference ablation feature selection.
- **Automated Evaluation Framework:** An automated evaluation framework consisting of traditional evaluation, pairwise and point-wise LLM-based evaluation and their correlation with human judgement.

Project: MMVU: A Comprehensive Benchmark for Expert-level Multi-Disciplinary Video Understanding and Reasoning

- **Expert-level Video Understanding:** Fine-tune base models such as GPT-4V and Qwen2-VL-72B on expert-annotated, college-level video data to promote LLM-ability in domain-specific video comprehension.
- **Complex Multi-step Reasoning:** A multi-step pipeline to enhance LLM-ability to answer college-level complex reasoning questions based on video background understanding and text reasoning.

Project: FindVer: Explainable Claim Verification over Long and Hybrid-content Financial Documents

- **Retrieve Relevant Data for Problem-Solving:** A Retrieval-Augmented Generation (RAG) workflow using generative AI models for long-context document retrieval and intensive-reasoning question-answering.
- **Verify Claims Step-by-step:** A one-shot Chain-of-Thought (CoT) pipeline to encourage LLMs to follow a

step-by-step process to solve the claim verification task.

Industry Experience

Audit Intern, PwC-China -- Shanghai, China Jan. 2024 - Feb. 2024

- Participate in reviewing internal reviews and issuing external annual reports for Shanghai Construction Second Construction Group.

Business Analysis Intern, Webank -- Shenzhen, China Aug. 2022 - Sept. 2022

- Analyze corporate monthly input data, incorporate external data to attribute reasons for regional situation and propose advice, producing the result as a business analysis report.

Notable Projects

C-like Compiler Dynamic Programming Implementation: a compiler implementation for a C-like programming language using Python. (Course Project, Zhejiang University, Jun. 2024)

Literature Review on Clinical Data Shift: a literature review project summarizing the theoretical framework and methodology for clinical data application and existing gaps in clinical data shift. (Course Project, Zhejiang University, Nov. 2023)

Lora Style Embedding for AI-portrait Generation: a stable diffusion-based method to fine-tune a multimodal text-to-image model to generate AI-portraits. (ModelScope AIGC OpenSource Challenge Sept. 2023)

Data Visualization Platform: a web-based application displaying Olympiad Swimming Championships results and split time implemented using React, Javascript and Python. (Course Project, Zhejiang University, June 2022)

Honors and Awards

- **National Third Prize --- ModelScope AIGC OpenSource Challenge** Sept. 2023
- **First Prize (55th rank) --- National Collegiate Mathematics Competition** Jan. 2023
- **National Scholarship for Chinese College Students** Oct. 2022
- **First Prize (28th rank) --- China Mathematical Olympiad (Guangdong Divisional Round)** Oct. 2019
- **First Prize (21st rank) --- 18th China Girl's Mathematical Olympiads (CGMO)** Aug. 2019
- **Bronze medal --- the 34th China Mathematical Olympiad (CMO)** Nov. 2018
- **First Prize (18th rank) --- China Mathematical Olympiad (Guangdong Divisional Round)** Oct. 2018
- **First Prize (18th rank) --- 17th China Girl's Mathematical Olympiads (CGMO)** Aug. 2018

Services

Zhejiang University Computer Science Department Peer Education Mentor Served as a mentor in the Peer Education Mentor Program for incoming students in Computer Science major. (Academic year 2022-2023)

New Oriental Student Teaching Assistant Served as an undergraduate teaching assistant in the New Oriental Teaching Assistant Program for middle school students preparing for the TOEFL test. (Jun. 2021 - Aug. 2021)

Extracurricular activities

National Second-Level Athlete in Swimming, represented Zhejiang University in multiple national, provincial championships.