

Chentian Wu

Math & CS @ UW-Madison

<https://wuct.site>

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Research Interests

Mathematical Logic, Formal Methods, Program Synthesis and Verification.

Education

University of Wisconsin-Madison, Madison, USA

B.Sc in Mathematics (GPA: 4.0/4.0)

B.Sc in Computer Science (GPA: 4.0/4.0)

01/2024 - 12/2025

(expected)

Nanjing University, Nanjing, China

B.Eng in Computer Software Engineering

09/2021 - 12/2023

(transferred)

Research Experiences

PL Group

Advised by Prof. *Xiaokang Qiu*

Program Synthesis & Computer Logic

Purdue University

03/2024 - Now

iSE Lab

Advised by Prof. *Chunrong Fang*

Mobile GUI Testing & Large Language Models

Nanjing University

10/2022 - 09/2023

Publications

LLM for Test Script Generation and Migration: Challenges, Capabilities, and Opportunities [\[arxiv\]](#)

Shengcheng Yu, Chunrong Fang, Yuchen Ling, **Chentian Wu**, Zhenyu Chen.

In proceedings of IEEE QRS 2023.

Awards

Dean's List.

For students with higher level of scholastic achievements in 2024 Spring.

UW-Madison, 05/2024

Summer Internship Scholarship.

For students with summer internships.

UW-Madison, 05/2024

Transfer Scholars Summer Award.

For transfer students maintaining satisfactory academic progress.

UW-Madison, 05/2024

CitiCup Financial Innovation and Application Competition, Third Prize

Top 10%.

China, 08/2023

National College Students' Mathematical Competition, First Prize

Top 5%.

Jiangsu, China, 11/2022

Nanjing University Renmin Scholarship.

Top 10%.

Nanjing University, 10/2022

Teaching

Math Learning Center Proof Table Leader. [\[intro\]](#)

Providing support in successfully navigating proof-based (MATH341+) mathematics course.

UW-Madison, Starting 09/2024

Projects

- FO^k SYNTH**: Synthesizing Extended First-Order Logic Sentences with Alternating Tree Automata. [\[code\]](#) 06/2024
A possible implementation of the **EXACT LEARNING** synthesizer in [this paper](#). (Independent)
Project Leader
- REP FLOW**: Dialogue System based Android Bug reproduction workflow. [\[code\]](#) 12/2023
A possible implementation of REPASSISTOR in [this paper](#).
Project Leader
- SYSY COMPILER**: Building a Compiler for **SysY** (a sub-language of C) from Scratch. [\[code\]](#) 06/2023
Using ANTLR4 as frontend and LLVM as backend.
Independent
- SSE STAR MARKET MAKER**: Market Making Strategy Management Platform. 12/2022
Enhancing Market Resilience and Liquidity with Deep Learning-Based Strategies.
Web Development Group Leader
- SEEC PLAG**: Serverless-based Integrated Online Plagiarism Checker. 10/2022
National Training Program of Innovation for Undergraduates (202310284364Y)
Project Participant
- VJVM**: Using Java to Implement a Java Virtual Machine from Scratch. [\[code\]](#) 05/2022
Derived from Final Project of SECI@NJUSE, 2022.
Independent

Skills

Programming

Languages: Python, Java, C, C++, OCaml, \LaTeX , SQL

Frameworks: ANTLR4, PyTorch, SpringBoot, Flask, Vue, React, Appium, Docker, Kubernetes, LangChain.

Languages: English (Fluent), Mandarin (Native)

One More Thing: An amateur enthusiast of *Number Theory* and *Combinatorics*.