

Chenyuan Yang

cy54@illinois.edu | yangchenyuan.github.io

RESEARCH INTEREST

My research aims to improve the *reliability* of software systems. I am interested in leveraging testing, analysis, and verification techniques to make software systems more *reliable* and *robust*, especially for machine learning systems. Besides, I enjoy contributing to the open-source community.

EDUCATION

University of Illinois at Urbana-Champaign

Ph.D. Student in Computer Science, advised by Prof. [Lingming Zhang](#)

Aug. 2022 - Present

IL, US

Nanjing University

B.Sc. in Computer Science and Technology, graduated with honors

Sept. 2018 - Jul. 2022

Nanjing, China

- Enrolled in *Elite Class*, GPA 91.2/100, rank 1/24

PUBLICATION

Fuzzing Deep-Learning Libraries via Large Language Models

ISSTA 2023

Yinlin Deng, Chunqiu Steven Xia, Haoran Peng, [Chenyuan Yang](#), Lingming Zhang. [\[paper\]](#)

Fuzzing Automatic Differentiation in Deep-Learning Libraries

ICSE 2023

[Chenyuan Yang](#), Yinlin Deng, Jiayi Yao, Yuxing Tu, Hanchi Li, Lingming Zhang. [\[paper\]](#) [\[code\]](#)

Fuzzing Deep-Learning Libraries via Automated Relational API Inference

ESEC/FSE 2022

Yinlin Deng*, [Chenyuan Yang*](#), Anjiang Wei, Lingming Zhang. [\[paper\]](#) [\[code\]](#)

Free Lunch for Testing: Fuzzing Deep-Learning Libraries from Open Source

ICSE 2022

Anjiang Wei, Yinlin Deng, [Chenyuan Yang](#), Lingming Zhang. [\[paper\]](#) [\[code\]](#)

* denotes joint first authors

PROFESSIONAL EXPERIENCE

Research Assistant at PL/FM/SE Group, UIUC

Advised by Prof. [Lingming Zhang](#)

May. 2021 - Present

Topic: Fuzzing DL libraries

Research Assistant at SPAR Group, Nanjing University

Advised by Prof. [Yanyan Jiang](#)

Aug. 2020 - Apr. 2021

Topic: Testing

AWARDS

SIGSOFT CAPS Travel Grant for ESEC/FSE 2022

Sept. 2022

China National Scholarship | Top 0.2%

Oct. 2020

Special Scholarship for Undergraduates in Basic Science, Nanjing University | 1/24

Nov. 2021

Elite Program First-class Scholarship, Nanjing University

Oct. 2019

Merit Student, Nanjing University

Oct. 2019

TALKS

Fuzzing Deep-Learning Libraries via Automated Relational API Inference

Sept. 2022

- Software Engineering Retreat, University of Illinois at Urbana-Champaign

Free Lunch for Testing: Fuzzing Deep-Learning Libraries from Open Source

May 2022

- iSE symposium, Nanjing University

TEACHING EXPERIENCE

Teaching Assistant at Nanjing University

Sept. 2021 - Jul. 2022

Problem Solving, a core course for the students in the elite program

SKILL STACK

- **Common:** Python, C, TypeScript, docker, Vim, Git, SQL, L^AT_EX, libFuzzer
- **Machine Learning:** PyTorch, TensorFlow, JAX