

# YUJIN ZHANG

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## EDUCATION

Nanjing University, China

Sep 2021 - Present

Bachelor of Engineering (B.E.) in Software Engineering (Expected)

Overall GPA: 4.56/5.00 Ranking: 10/259

## RESEARCH EXPERIENCE

**Social Dynamics of Fixing Common Vulnerabilities and Exposures(CVEs)**

Aug 2024 - Present

*Advised by Prof. Haojian Jin at University of California San Diego*

- Conducted a mixed-method analysis over 500 recent CVEs entries and associated events from GitHub Python projects to study how participants take different roles and collaborate with shared responsibility in fixing CVEs.
- Identified key factors statistically significant in accelerating the successful resolution of CVEs within open-source software communities.

**Trust Label Design for Open Source Software**

Mar 2024 - July 2024

*Advised by Prof. Haojian Jin at University of California San Diego*

- Conducted interviews with 12 software engineers to identify the metrics they use to assess the trustworthiness of OSS projects on GitHub.
- Designed TrustPercentile.md, a Markdown-formatted label that consolidates human factors-related information about open-source software projects and developed a web service to enable authenticated users to automatically generate TrustPercentile.md files..
- Conducted a usability study with 13 novice OSS consumers, demonstrating TrustPercentile's effectiveness in helping people identify more expert-agreed risk signals.

**Scaling Inter-procedural Dataflow Analysis on the Cloud**

Aug 2023 - June 2024

*Advised by Prof. Zhiqiang Zuo at Nanjing University*

- Proposed a novel incremental distributed algorithm to accelerate incremental interprocedural dataflow analysis, and implemented the algorithm on the general distributed graph processing platform, Apache Giraph.
- Developed BigDataflow-Incremental, a framework running on a real-world cloud, which provides a variety of high-level APIs to simplify the implementation of client dataflow analyses.
- Evaluated the performance and scalability of BigDataflow-Incremental over large-scale software systems (e.g., Linux kernel), demonstrating its ability to finish incremental analysis of program of millions of lines of code in minutes.

## AWARDS AND HONORS

**Outstanding Student of Nanjing University**

Sep 2022, Sep 2023

**Nitori International Scholarship (Top 5%)**

Sep 2023

**Tencent Scholarship of Nanjing University (Top 3%)**

Sep 2022

**Second Prize in National High School Mathematics Competition of China**

Sep 2020

**First Prize in National Olympiad in Informatics (Provinces)**

Nov 2018

## TECHNICAL STRENGTHS

**Technical Skills**

Programming Languages (Python, C/C++, Java), Frontend (HTML, CSS, JavaScript), Backend (Spring Boot, Redis), Big Data Analytics (Hadoop, Kafka)

**Languages**

Chinese Mandarin (native), English (S24 in TOEFL)