

Yuchao Huang

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EDUCATION

Institute of Software Research, Chinese Academy of Sciences

Ph.D., State Key Laboratory of Intelligent Game

Major: Software Engineering

Advisor: Qing Wang

Beijing, China

Sep 2022 - Jul 2025

Institute of Software Research, Chinese Academy of Sciences

M.S., State Key Laboratory of Intelligent Game

Major: Software Engineering

Advisor: Qing Wang

Beijing, China

Sep 2019 - Jul 2022

University of Electronic Science and Technology of China

B.S., School of Computer Science and Engineering

Major: Computer Science and Technology

Chengdu, China

Sep 2015 - Jul 2019

RESEARCH EXPERIENCE

Institute of Software Research, Chinese Academy of Sciences

Doctoral Student, State Key Laboratory of Intelligent Game

Beijing, China

Sep 2015 - Jul 2022

- Developed three automated methods to reproduce Android crash reports
- Collected 102 papers on the application of LLMs in software testing and co-authored a survey on TSE
- Published five papers in top SE conferences and journals such as ICSE, FSE, TSE

PUBLICATIONS

- Junjie Wang, **Yuchao Huang**, Chunyang Chen, Zhe Liu, Song Wang, Qing Wang (2024). Software Testing With Large Language Models: Survey, Landscape, and Vision. *IEEE Trans. Software Eng.*.
- **Yuchao Huang**, Junjie Wang, Zhe Liu, Yawen Wang, Song Wang, Chunyang Chen, Yuanzhe Hu, Qing Wang (2024). CrashTranslator: Automatically Reproducing Mobile Application Crashes Directly from Stack Trace. *Proceedings of the 46th IEEE/ACM International Conference on Software Engineering, ICSE 2024, Lisbon, Portugal, April 14-20, 2024.*
- **Yuchao Huang**, Junjie Wang, Zhe Liu, Song Wang, Chunyang Chen, Mingyang Li, Qing Wang (2023). Context-aware Bug Reproduction for Mobile Apps. *45th IEEE/ACM International Conference on Software Engineering, ICSE 2023, Melbourne, Australia, May 14-20, 2023.*
- Moshi Wei, **Yuchao Huang**, Jinqiu Yang, Junjie Wang, Song Wang (2023). CoCoFuzzing: Testing Neural Code Models With Coverage-Guided Fuzzing. *IEEE Trans. Reliab.*

- **Yuchao Huang**, Moshi Wei, Song Wang, Junjie Wang, Qing Wang (2022). Yet another combination of IR- and neural-based comment generation. *Inf. Softw. Technol.*..
- Junjie Wang, **Yuchao Huang**, Song Wang, Qing Wang (2022). Find bugs in static bug finders. *Proceedings of the 30th IEEE/ACM International Conference on Program Comprehension, ICPC 2022, Virtual Event, May 16-17, 2022.*
- Moshi Wei, Nima Shiri Harzevili, **Yuchao Huang**, Junjie Wang, Song Wang (2022). CLEAR: Contrastive Learning for API Recommendation. *44th IEEE/ACM 44th International Conference on Software Engineering, ICSE 2022, Pittsburgh, PA, USA, May 25-27, 2022.*
- Moshi Wei, **Yuchao Huang**, Junjie Wang, Jiho Shin, Nima Shiri Harzevili, Song Wang (2022). API recommendation for machine learning libraries: how far are we?. *Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering, ESEC/FSE 2022, Singapore, Singapore, November 14-18, 2022.*

PATENTS

- Context-aware Crash reproduction method and device based on multimodal matching model (Patent No. 2023109488819)

PRESENTATIONS

Poster: Annual Academic Conference of Institute of Software in 2022	2022
Oral: 45th International Conference on Software Engineering (ICSE 2023)	2023
Poster: Annual Academic Conference of Institute of Software in 2023	2023
Oral: 46th International Conference on Software Engineering (ICSE 2024)	2024
Poster: Annual Academic Conference of Institute of Software in 2024	2024

HONORS & AWARDS

First-Class Scholarship of the University of Chinese Academy of Sciences	2021
Distinguished Paper Award in ICPC 2022	2022
University of Chinese Academy of Sciences Triple-A Student	2023
Outstanding Poster Award at the 2023 Academic Annual Meeting of ISCAS	2023

REFERENCES

Qing Wang
 Institute of Software Research, Chinese Academy of Sciences
 Research Fellow, State Key Laboratory of Intelligent Game
 Principal Advisor
 Beijing, No.4, South 4th Street, Zhongguancun
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Junjie Wang
 Institute of Software Research, Chinese Academy of Sciences
 Research Fellow, State Key Laboratory of Intelligent Game

Co-Advisor

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