Qiping Wei

Ph.D. Candidate
Computer Science and Engineering
University of Texas at Arlington
Arlington, TX 76019

8178239642
qiping.wei@mavs.uta.edu
https://qiana0223.github.io/

Education

University of Texas at Arlington
Ph.D.   Computer Science and Engineering
July 2025(Expected)

University of Texas at Arlington
M.S.   Computer Science and Engineering
Fall, 2019

Huazhong University of Science and Technology
B.S.   School of Computer Science and Technology
Spring, 2015

Publications

[1] Ren X*, Wei Q. Sligpt*: A Large Language Model-Based Approach for Data Dependency Analysis on Solidity Smart Contracts. Software. 2024; 3(3):345-367. https://doi.org/10.3390/software3030018.(*: Equal contribution.)

[2] Qiping Wei, Fadul Sikder, Huadong Feng, Yu Lei, Raghu Kacker, and Richard Kuhn. 2024. SmartExecutor: Coverage-Driven Symbolic Execution Guided via State Prioritization and Function Selection. Distrib. Ledger Technol. Just Accepted (July 2024). https://doi-org.ezproxy.uta.edu/10.1145/3678188.

[3] Q. Wei, F. Sikder, H. Feng, Y. Lei, R. Kacker and R. Kuhn, "SmartExecutor: Coverage-Driven Symbolic Execution Guided by a Function Dependency Graph," 2023 5th Conference on Blockchain Research Applications for Innovative Networks and Services (BRAINS), Paris, France, 2023, pp. 1-8, doi: 10.1109/BRAINS59668.2023.10316942.

[4] Huadong Feng, Xiaolei Ren, Qiping Wei, et al., "MagicMirror: Towards High-Coverage Fuzzing of Smart Contracts," 2023 IEEE Conference on Software Testing, Verification and Validation (ICST), Dublin, Ireland, 2023, pp. 141-152, doi: 10.1109/ICST57152.2023.00022.

Active Research Projects

LLM-Formulated Process for Sequence Generation

Large Language Models (LLMs) have the capacity to understand code and near human-level reasoning skills. This project is to investigate how an LLM can be formulated to generate sequences that will be fed to the symbolic execution process.

Game-Based DRL for Sequence Generation

Reinforcement learning (RL) is a learning framework for sequence decision problems. It is effective to train agents to play a variety of games. This project takes advantage of RL to learn an optimal policy to generate sequences by training an agent to play the game simulated on the symbolic execution process of a smart contract.

Teaching Experiences

- Spring 2018, Teaching assistant, Computer Networks
- Fall 2018, Teaching assistant, Advanced Topics on Networking
- Spring 2019, Teaching assistant, Computer Networks and Advanced Topics on Networking
- Summer 2020, mentor, for Martha Taffa
- Fall 2020, Teaching assistant, Software Testing and Maintenance
- Spring 2021, Teaching assistant, Advanced Topics in Software Engineering
- Summer 2021, Teaching assistant, Software Testing and Maintenance
- Fall 2021, Teaching assistant, Software Testing and Maintenance
- Spring 2022, Teaching assistant, Advanced Topics in Software Engineering
- Summer 2022, Teaching assistant, Advanced Topics in Software Engineering
- Fall 2022, Teaching assistant, Software Testing and Maintenance
- Spring 2023, Teaching assistant, Advanced Topics in Software Engineering
- Summer 2023, Teaching assistant, Advanced Topics in Software Engineering
- Fall 2023, mentor, for Ameen Mahouch
- Fall 2023, Teaching assistant, Software Testing and Maintenance
- Spring 2024, Teaching assistant, Advanced Topics in Software Engineering
- Summer 2024, Teaching assistant, Software Testing and Maintenance
- Spring 2024, mentor, for Matthew Moran
- Fall 2024, Teaching assistant, Software Testing and Maintenance

Awards

– Cyneta Networks Outstanding Graduate Teaching Assistant award, April 2024

– BRAIN 2023 paper nominated for the Best Paper Award, October 2023

Services

– Editor, Journal of Computer Technology and Education (in Chinese) (2020-present)

– Participant, Tech Elective Fair, September 2024

– Volunteer Judge, Innovation Day, April 2024

– Volunteer Judge, Innovation Day, April 2023

– Student Volunteer, All Majors Job Fair, September 2019