Ying Zhou

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Research Interests

Software Maintenance and Evolution, Software Testing, Mobile App Analysis.

Education

The University of Texas at Dallas — Dallas, TX
Doctor of Philosophy in Computer Science — *Aug. 2021 – Aug. 2026*

Southern University of Science and Technology — Shenzhen, China
Bachelor in Computer Science and Technology ***(3.63/4.0)*** — *Sept. 2016 – Jul. 2020*

Skills

Languages: Java, Python, JavaScript, HTML/CSS, C++, SQL, Bash, LaTeX
Libraries & Platforms: Hadoop, PySpark, Maven, Gradle, Docker, TravisCI, SpotBugs, JUnit, Monkey, Android Lint
Database: MongoDB, MySQL, SQL Server, Redis

Experience

Southern University of Science and Technology — Jul. 2020 – Aug. 2021
Research Assistant — *Shenzhen, China*

- Contributed as Joint first authors to Codegex, a regular-expression-based approach for automated code review that uses several strategies to extract analysis contexts (syntax and type information) from program texts.
- Compared the effectiveness and efficiency of Codegex and SpotBugs in analyzing 52 projects. Our results show that Codegex can detect bugs with comparable accuracy as SpotBugs but up to 590X faster.
- Evaluated Codegex in automated code review by running it on 4256 pull requests where it generated 372 review comments and received 116 feedback. Overall, 78.45% of the feedback that we received is positive.

Tecent — Jun. 2019 – Aug. 2019
Software Engineer in Test Intern — *Shenzhen, China*

- Designed and built a tool for automatically generating differential code coverage reports in the QQ wallet project.
- Appended differential code data to Gcov outputfiles,changed LCOV source code and created HTML pages report containing the source code annotated with additional differential coverage information.
- Made a Tencent BlueKing CI plugin to report code coverage information when developers commits code.

Projects

Influence Maximization Problem — Nov. 2018 – Dec. 2018

- Implemented state-of-art algorithm: a martingale approach for influence maximization in near-linear time.
- Optimized by building the maximum heap and selecting nodes by the lazy update method, and applied multiprocessing to improve the performance of this CPU bound task.
- Speeded up at least 5 times faster than pure algorithm and ranked first in the final performance contest.

Rewards

1st Prize, National Software Testing Finals for College Student *Dec. 2019*
3rd Place, Tencent WeTest Cup. *Dec. 2019*
2nd Place, The Third IEEE International Software Testing Contest at QRS. *Jul. 2019*
4th Place, International Software Testing Contest at ICST, *Apr. 2019*
Campus Outstanding Student Scholarship, *Oct. 2019*

Publications

- S. H. Tan, Z. Li, C. Hu, Z. Li, X. Zhang, **Y. Zhou.** GitHub-OSS Fixit: Fixing bugs at scale in a Software Engineering Course. In: International Conference on Software Engineering, Joint Track on Software Engineering Education and Training (ICSE-JSEET 2021), *May. 2021*

- Song, Y., Mahmud, J., **Zhou, Y.**, Chaparro, O., Moran, K., Marcus, A., & Poshyvanyk, D. (2022). Toward Interactive Bug Reporting for (Android App) End-Users.