Yisen Xu

| +86 180 7174 8665| xuyisen@whu.edu.cn |
| https://xuyisen.github.io |
| Hangzhou, Zhejiang, China |

Education

Wuhan University Wuhan, China
MSc in Computer Science *Sept. 2019 – Jun. 2022*

- GPA: 3.66/4.0
- Coursework covers math and statistical modelling, AI, software testing, software engineering, and algorithm design
- One publication on a top-tier journal, and one publication on a high-impact journal
- Winner of National scholarship, 3 times WHU excellence scholarship winner

Wuhan University Wuhan, China
BEng in Software Engineering *Sept. 2015 – Jun. 2019*

- GPA: 3.7/4.0
- One publication on an academic conference
- 5 times WHU excellence scholarship winner

Experience

Java Engineer Jul. 2022 – Present
Alibaba, Enterprise Intelligence Division *Hangzhou, China*

- Built a human resources reporting system for manpower cost statistics
- Built a platform to visualise and analyse Alibaba Group's daily office data, including code statistics and work distribution
- Core techniques: `mysql, statemachine, mq, redis, mangoDB, gdb`

Researcher Dec. 2018 – Oct. 2019
UCL&WHU *Wuhan, China*

- Clone detection on large Scala codebases

Projects

Study of Higher-order Functions | *Scalameta, SemanticDB, Weka, AST Parser* Sept. 2019 – Oct. 2021

- Usage analysis and test optimization of higher-order functions in Scala programs
- Two papers were published. One paper that was published on Empirical Software Engineering, the other was published on Journal of Computer Science and technology
- Learned about machine learning and testing in Scala and how to use tools like `Weka, Scalameta, Matlab, SemanticDB`

Clone detection on large Scala Codebases | *Clone detection, AutoEncoder* Jan. 2018 – Nov. 2018

- Part of the work with UCL
- Proposed an automated tool whose job is to detect code clones in the Scala programs. This tool first extracts features, such as identifier, Abstract Syntax Tree, Control Flow Graph, and bytecode to represent code segments, it then leverages deep learning model (AutoEncoder) to detect identical or similar code segments.
- The tool was adopted by Morgan Stanley and implemented into their trading system

Publications

- Yisen Xu, Fan Wu, Xiangyang Jia, Lingbo Li, Jifeng Xuan, "Mining the use of higher-order functions," *Empirical Software Engineering*, 2020, 25(6): 4547-4584.
- Yisen Xu, Xiangyang Jia, Fan Wu, Lingbo Li, Jifeng Xuan, "Automatically Identifying Calling-Prone Higher-Order Functions of Scala Programs to Assist Testers" *Journal of Computer Science and Technology*, 2020, 35, 1278-1294.
- Wahidur Rahman, Yisen Xu, Fan Pu, Jifeng Xuan, Xiangyang Jia, Michail Basios, Leslie Kanthan, Lingbo Li, Fan Wu, Baowen Xu, "Clone Detection on Large Scala Codebases," *2020 IEEE 14th International Workshop on Software Clones (IWSC)*, IEEE, 2020: 38-44.
- Yisen Xu, Xiangyang Jia, Jifeng Xuan, "Writing Tests for This Higher-Order Function First: Automatically Identifying Future Callings to Assist Testers," *Proceedings of the 11th Asia-Pacific Symposium on Internetware (Internetware 2019)*, 2019: 1-10.

Languages

- Mandarin Chinese (Native)
- English (IELTS 6.5)

Technical Skills

- Solid Java programming abilities, able to tackle problems using a variety of design patterns and data structures
- Competent in additional programming languages
- Solid prior experience with distributed systems
- Knowledge of AI-related areas like machine learning and data mining

Communication Skills

- Team-worker with strong team sense
- Always ready to acquire new knowledge
- Rapidly absorbing new information and enthused about cutting-edge technologies
- Well-organized and self-disciplined