ZHIQIANG WU

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I am Ph.D. candidate in Computer Science and Engineering at Hanyang University, South Korea. My major research field is Software Engineering. The objective of my research is to improve the security on mobile system. My interests include Mobile Application Analysis, Software Refactoring and Deep Learning.

Education

Hanyang University, South Korea	2017 - Present
Ph.D. in Computer Science and Engineering	
Supervisor: Scott Uk-Jin Lee	
Hanyang University, South Korea	2015 - 2017
M.S. in Computer Science and Engineering	
Lunghwa University of Science and Technology, Taiwan	2014 - 2014
Academic Exchange Students in Electronic Engineering	
Shanghai Polytechnic University, Shanghai	2011 - 2015
B.E. in Computer Science and Technology	

Research Experiences

Definition and Detection of Practically Valuable Code Smells	2020 - 2021
Program Analysis of Copyright for Court	2018 - 2019
Access Control of Security Policy for IoT Environment	2016 - 2019
Establishment of Software Platform for ICT Equipment	2016 - 2018
Graph Modification for SJM Company	2016 - 2017
Vehicle Gate Barrier System for Intelligence Community	2013 - 2014
Software of Finance Automatically Analysis	2013 - 2014

Academic Activities

IEEE Graduate Student Member   2017 – Present

Student Volunteer for ICSE   2020

Publications

1. **Zhiqiang Wu**, Xin Chen and Scott Uk-Jin Lee, FCDP: Fidelity Calculation of Description-to-Permissions in Android Apps, *IEEE ACCESS*, vol. 9, 2021, pp. 1062-1075

2. Xin Chen, **Zhiqiang Wu** and Scott Uk-Jin Lee, Duplicate Code Detection Based on Geometric Center for IoT Application, in *Proc. of 7th International Conference on Information, System and Convergence Applications*, Ho Chi Minh, Vietnam, 2020

3. **Zhiqiang Wu**, Xin Chen and Scott Uk-Jin Lee, Permission Smells Detection for IoT Applications on Android Platform, in *Proc. of Korea Software Congress*, 2019

4. Xin Chen, **Zhiqiang Wu** and Scott Uk-Jin Lee, Web Attack Detection Based on ResNet and RNN, in *Proc. of International Conference on Computational Sciences and Technologies*, Jamshoro, Pakistan, 2019

5. **Zhiqiang Wu**, Xin Chen and Scott Uk-Jin Lee, Identifying Latent Android Malware from Application's Description using LSTM, in *Proc. of 6th International Conference on Information, System and Convergence Applications*, Bangkok, Thailand, 2019, pp. 40-42

6. **Zhiqiang Wu**, Xin Chen and Scott Uk-Jin Lee, Permissions based Automatic Android Malware Repair using Long Short-Term Memory, in *Proc. of Korean Society of Computer Information Conference*, South Korea, 2019, pp. 387-388 (***Best Paper***)

7. **Zhiqiang Wu**, Asad Abbas, Xin Chen and Scott Uk-Jin Lee, Classification of Concurrent Anomalies for IoT Software-based Support Vector Machine, Journal of Theatrical and Applied Information Technology, vol. 96, no. 3, 2018, pp. 832-842

8. Xin Chen, **Zhiqiang Wu** and Scott Uk-Jin Lee, Testing and Evaluation of Free/Open Source Web Vulnerability Scanners for IoT Web Applications, in *Proc. Of International Workshop on Convergence Information Technology,* Busan, Korea, 2017

9. **Zhiqiang Wu**, Asad Abbas and Scott Uk-Jin Lee, Multiple Concurrency Anomalies Classification for Mobile Applications using Support Vector Machine, in *Proc. of International Conference on Computing Convergence and Applications*, Saipan, U.S.A, 2017 (***Best Paper***)

10. Asad Abbas, Isma Farah Siddiqui, **Zhiqiang Wu**, Mohsin Javaid Siddiqui and Scott Uk-Jin Lee, Contextual Variability Management for Multi-Software Product Line, in *Proc. of International Conference on Computing Convergence and Applications*, Saipan, U.S.A, 2017

11. **Zhiqiang Wu** and Scott Uk-Jin Lee, The Application of Banker's Algorithm in Order Scheduling Management for Deadlock Avoidance, in *Proc. of 2016 Korea Computer Comprehensive Congress*, Jun. 2016, pp.660-662

12. Asad Abbas, **Zhiqiang Wu**, Isma Farah Siddiqui and Scott Uk-Jin Lee, <u>Challenges of Multi-Objective Optimization in Feature Model of Software Product Line</u>, in *Proc. of 3rd International Conference on Information, System and Convergence Applications*, 2016, pp.15-17

13. Asad Abbas, **Zhiqiang Wu**, Isma Farah Siddiqui and Scott Uk-Jin Lee, <u>An Approach for Optimized Feature Selection in Software Product Line using Union-Find and Genetic Algorithms</u>, *Indian Journal of Science and Technology*, vol.9, pp.1-9, May 2016

14. Asad Abbas, **Zhiqiang Wu**, Isma Farah Siddiqui and Scott Uk-Jin Lee, <u>Optimized Feature selection with Crosscutting Concerns in Software Product Line Feature Model</u>, in *Proc. of 2nd International Conference on Information and Convergence Technology for Smart Society*, 2016, pp.9-11

15. **Zhiqiang Wu**, Seonwoong Kim, Abdul Rahim Mohamed Ariffin and Scott Uk-Jin Lee, <u>An Effect Attendance Management System Based on Browser/Server Technique</u>, in *Proc. of 42nd Korea Computer Congress*, Dec. 2015, pp.505-507

Practical Experiences

China Life Insurance Co. Ltd.   2014

----- *Intern at Division of Application*

My responsibility was deploying the new application to server and assist colleagues to test the software environment.

Technical Support Association in Computer College   2012 - 2014

----- *Poster Designer*

I have joined it for 2 years. I mainly took charge of designing posters which used for propagation of computer college. Meanwhile, I helped other students who do not how to repair their laptops to repair them as a volunteer.

ACM Club   2011 - 2015

----- *Organizer*

Due to loving algorithm programming, I have joined this club for 4 years. I was appointed leader of this club when I was a junior student. Then, I organized training every week and assisted professor to arrange students attending contests.

Awards/Honors

Chinese Government Scholarship (CSC) for Ph.D. Study   2017-2021

Hanyang University Scholarship for Engineering Students   2015

Excellent Graduate of Shanghai Second Polytechnic University (Top 10%)   2015

Outstanding Student Awardsof Shanghai Second Polytechnic University (Top 5%)   2014

National 3rd Prize of 2014 Taiwan Open Hardware Application Innovation Contest   2014

Provincial 1st Prize of the 1st Innovation Contest by Taoyuan, Taiwan   2014

2nd Prize of Scholarship in Shanghai Second Polytechnic University (Top 10%)

3rd Prize of Scholarship in Shanghai Second Polytechnic University (Top 20%)

Provincial 3rd Prize of 3th "Lan Qiao Cup" Programming Contest in Shanghai   2013

Skills

Language competence: English (IELTS 5.5), Korean (Level 2), Chinese

Major Skills: C/C++, Java, Golang, Python, Linux, C#

Professional certificates: Embedded System Designer, Microsoft Technology Associate

Last Updated: Jan. 12, 2021