

Kisub Kim

Research Scientist @
Singapore Management University (SMU)
<https://falconlk.github.io>
<http://codesearch.uni.lu/facoy>
<http://codesearch.uni.lu/cocabu>

Address: 10, Whampoa East
338521, Singapore
Country: Singapore
Phone No.: +65 8885 8727
Email: kisubkim@smu.edu.sg

INTERESTS

Passionate about research related to combination of the Artificial Intelligence and Software Engineering. Recently, exploring technologies of machine learning and deep learning along with its possible applications on search engines, software fault localization.

EDUCATION

- PhD Computer Science, University of Luxembourg
Graduation date: December 17, 2021.
- M.Eng. Computer Engineering, Chungbuk National University
Graduation date: February 22, 2017, GPA: 4.5 / 4.5
- B.S.E. Computer Engineering, Chungbuk National University
Graduation date: August 28, 2014, GPA: 3.87 / 4.5 (Graduation Rank: No. 6/145)
- English Language Program, University of Pennsylvania
August 25, 2010 - Jan 28, 2011.

PUBLICATIONS

Journals

- Deheng Yang, Kui Liu, Dongsun Kim, Anil Koyuncu, Kisub Kim, Haoye Tian, Yan Lei, Xiaoguang Mao, Jacques Klein, and Tegawendé F. Bissyandé, “Where were the Repair Ingredients for Defects4j Bugs?,” *Empirical Software Engineering (EMSE)*, Vol. 26, No. 6, pp.1-33, 2021. SCI.
- Raphael Sirres, Tegawendé F. Bissyandé, Dongsun Kim, David Lo, Jacques Klein, Kisub Kim, and Yves Le Traon, “Augmenting and Structuring User Queries to Support Efficient Free-Form Code Search,” *Empirical Software Engineering (EMSE)*, Vol. 23, No. 5, pp.2622-2654, 2018. SCI. *(as the main system handler)
- Jaekwon Lee, Kisub Kim, Yong-Hyeon Lee, Jang-Eui Hong, Young-Hoon Seo, Byung-Do Yang, and Woosung Jung, “Extracting the Source Code Context to Predict Import Changes using GPES,” *KSII Transactions on Internet and Information Systems*, Vol. 11, No. 2, pp.1234-1249, 2017. SCI(E).
- Yong-Hyeon Lee, Kisub Kim, Jaekwon Lee, and Woosung Jung, “Design and Implementation of a Data Extraction Tool for Analyzing Software Changes,” *Journal of The Korea Society of Computer and Information*, Vol. 21, No. 9, pp.65-75, 2016.

Proceedings

- Kui Liu, Shangwen Wang, Anil Koyuncu, Kisub Kim, Tegawendé F Bissyandé, Dongsun Kim, Peng Wu, Jacques Klein, Xiaoguang Mao, Yves Le Traon, “On the Efficiency of Test Suite based Program Repair: A Systematic Assessment of 16 Automated Repair Systems for Java Programs”, In Proceedings of the 42th International Conference on Software Engineering (ICSE 2020), Seoul, Korea, 2020.
- Kui Liu, Dongsun Kim, Tegawendé F Bissyandé, Taeyoung Kim, Kisub Kim, Anil Koyuncu, Suntae Kim, Yves Le Traon, “Learning to spot and refactor inconsistent method names”, In Proceedings of the 41th International Conference on Software Engineering (ICSE 2019), Montreal, Canada, 2019.
- Kisub Kim, Dongsun Kim, Tegawendé F. Bissyandé, Eunjong Choi, Li Li, Jacques Klein, and Yves Le Traon, “FaCoY - A Code-to-Code Search Engine,” In Proceedings of the 40th International Conference on Software Engineering (ICSE 2018), Gothenburg, Sweden, 2018.
- Kui Liu, Dongsun Kim, Li Li, Anil Koyuncu, Kisub Kim, and Tegawendé F. Bissyandé, “Live Search of Fix Ingredients for Automated Program Repair,” In Proceedings of the 25th Asia-Pacific Software Engineering Conference (APSEC 2018), Nara, Japan, 2018.
- Jaekwon Lee, Kisub Kim, and Woosung Jung, “A Distributed Survey Automation Based on a Customizable Form Template,” In Proceedings of the 11th KIPS International Conference on Ubiquitous Information Technologies and Applications (CUTE 2016), Bangkok, Thailand, 2016.
- Jaekwon Lee, Yonghyeon Lee, Kisub Kim, Jang-Eui Hong, and Woosung Jung, “GEPS: Supporting Source Code Analysis by Extracting the Evolutionary History of Software Structure and Quality,” In Proceedings of the 11th Asia Pacific International Conference on Information Science and Technology (APIC-IST 2016), Sapporo, Japan, 2016.
- Jaekwon Lee, Kisub Kim, and Woosung Jung, “Identifying a Component Co-usability using Similarity Metric,” In Proceedings of the 18th Korea Conference on Software Engineering (KCSE 2016), Gangwon, Korea, 2016, Awarded as Outstanding Short Paper.
- Yonghyeon Lee, Kisub Kim, and Woosung Jung, “Analyzing Developer’s Share of Code Based on Abstract Syntax Tree,” In Proceedings of the Korean Society of Computer Information Conference (KSCI 2015), Jeju, Korea, 2015.

PATENT

- Woosung Jung, Jaekwon Lee, and Kisub Kim, “Method for Recommending Component of Software Based on Identifying Component Co-usability and Recording Medium thereof.” Korea Patent 10-2016-0061506 issued May 19, 2016.

EXPERIENCE

- Teaching assistant, Creative Engineering Design, System Design Engineering, and Understanding Object Oriented World, Feb 2016 - Jun 2016.
- Teaching assistant, Software Engineering and Data Structure, Aug 2015 - Dec 2015.
- Development, Venture Team ‘Portal’, Developing an android application providing information about stock market ‘Mr. Stock’, Jul 2014 - Dec 2015.
- OCS (Order Communication System) Engineer, developing Order Communication

System and Electric Medical Record Program, Kyung Hee University Medical Center,
May 2014 - Feb 2015.

- Research Intern at NLP (Natural Language Processing) Lab.
Project, Monitoring mixed issues, Electronics and Telecommunications Research
Institute, Feb 2013 - Mar 2014.
- Development, ACM-ICPC (International Collegiate Programming Contest)
Representative of Chungbuk National University, Team 'Falcon', Nov 2012.
- Penetration Tester, Security vulnerability analysis and penetration test of computer
network, Security Team in Chungbuk National University, Apr 2012 - Dec 2012.
- Development, ACM-ICPC (International Collegiate Programming Contest)
Representative of Chungbuk National University, Team 'Illuminati', Nov 2011.
- Sergeant, Secretary of a General, Korean Army May 2008 - Apr 2010.

Honors and Awards

- 2nd place awarded, Talent Donation Contest by CBNU, Dec 2015.
- 3rd place awarded, Idea Contest by CBNU, Team 'Portal', Nov 2015.
- 2nd place awarded, Venture Competition by TWIM Corp, Team 'Portal', Nov 2015.
- Selected, Patent Support Project by Knowledge Asset Center, Sep 2015.
- 3rd place awarded, Venture Competition by CBNU, Team 'IPSE', Jan 2013.
- 1st Class Undergraduate Scholarship, Chungbuk National University, 2012 – 2013.