HENG LI

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Highlights

- Four years of industrial research and software development experience in BlackBerry and Synopsys.
- Publications in flagship venues: 3 EMSE, 1 ICSE (already adopted in industry).
- Cross-disciplinary background in Computer Science and Electronics Engineering.
- Research interests: software engineering, software log analytics, software performance analytics, mining software repositories, software test automation.

Publications in Flagship Venues (Full Papers)

- Heng Li, Weiyi Shang, Ahmed E. Hassan. *Which log level should developers choose for a new logging statement*? **Empirical Software Engineering Journal (EMSE)**, 2017. (Impact Factor 3.275; h5-index 42).
- Heng Li, Weiyi Shang, Ying Zou, Ahmed E Hassan. *Towards Just-in-time Suggestions for Log Changes*. **Empirical Software Engineering Journal (EMSE)**, 2017. (Impact Factor 3.275; h5-index 42).
- Heng Li, Tse-Hsun (Peter) Chen, Weiyi Shang, and Ahmed E. Hassan. *Studying software logging using topic models*. **Empirical Software Engineering Journal (EMSE)**, 2018. (Impact Factor 3.275; h5-index 42).
- Heng Li, Tse-Hsun (Peter) Chen, Ahmed E. Hassan, Mohamed Nasser, *Parminder Flora Adopting Autonomic Features in Existing Large-Scale Systems: An Experience Report*. **The 40th International Conference on Software Engineering, Software Engineering in Practice (ICSE 2018)**. 10 pages. Acceptance rate 24% (31/131). (h5-index 74).

Other Publications

- Shahnaz M. Shariff, Heng Li, Cor-Paul Bezemer, Ahmed E. Hassan, Thanh H.D. Nguyen, Parminder Flora. Improving the Testing Efficiency of Selenium-based Load Tests. **Proceedings of the 14th IEEE/ACM International Workshop on Automation of Software Test** (AST 2019).
- Heng Li, Jun Tao, Xuan Zeng. *Model-Revised GP Method for Analog Integrated Circuits Optimization.* **Journal of Computer-Aided Design & Computer Graphics** (**JCADCG**), 2012. (Impact Factor 1.435)
  (Published when I was a graduate student)
- Zixin Wang, Heng Li, Jiaming Li, *et al*. *Implement of a high precision laser beam automatic collimation system.* **Applied Laser**, 2009.
  (Published when I was an undergraduate student; I'm the first student author)
- Heng Li, Zhiyang Zhang. *Predicting the Receivers of Football Passes*. **Proceedings of the 5th Workshop on Machine Learning and Data Mining for Sports Analytics** (**MLSA 2018**)

Teaching Experience

- Teaching Assistant for the "Software Architecture" course at Queen's University (Fall 2018)
- Teaching Assistant for the "Game Architecture" course at Queen's University (Fall 2017)
- Teaching Assistant for the "Software Foundation" course at Fudan University (Fall 2010)

Education

- PhD in Computing, **Queen's University**, Canada — Sep. 2014 – Oct. 2018

- ✓ Research areas: mining software repositories, software log analytics, software performance analytics
- ✓ Thesis topic: *Mining development knowledge to understand and support software logging practices*
- ✓ Supervisor: Dr. Ahmed E. Hassan

■ M.Sc. in Electronics Engineering, **Fudan University**, China Sep. 2009 - June. 2012

- ✓ Research area: computer aided design, optimization
- ✓ Thesis topic: *Model-Revised Geometric Programming Method for Analog Integrated Circuits Optimization*
- ✓ Supervisor: Dr. Xuan Zeng

■ B.E. in Electronics Engineering, **Sun Yat-Sen University**, China, Sep. 2005 - June. 2009

- ✓ Ranking: 2/93; Outstanding graduate of Sun Yat-Sen University (for top 3% students)

Industrial experience

■ **Data Research Student, Ford Canada**, Waterloo, Canada Jan. 2017 – April 2017

- ✓ Mined log information from vehicles to provide insights on how to improve user experiences.
- ✓ Designed and implemented big data solutions that support real-time processing of big log data.
- ✓ **Related skills**: Big data (Hadoop stack), Java, data visualization (Tableau, D3).

■ **Performance Associate Student, BlackBerry**, Waterloo, Canada Sep. 2015 – Dec. 2016

- ✓ Focused on research-oriented projects that target to improve the performance of software systems and aid performance analysis processes.
- ✓ Designed and implemented an autonomic real-time system configuration optimization framework that helped improve system performance by more than 30%.
- ✓ **Related skills**: Python, Java, R, real time log analysis, optimization (local search), RESTful, Tomcat, MongoDB, MS SQL, JDBC, Spark, Elastic search, Kibana.

■ **Software R&D Engineer**, **Synopsys**, Shanghai, China July 2012 – Aug. 2014

- ✓ Successfully delivered several feature enhancement projects which are incorporated into a large-scale EDA software system to assists in the design and manufacturing of billions of electronic devices (e.g., iPhones) in the world.
- ✓ Got Annual New Star Award for the first year in Synopsys.
- ✓ **Related skills**: C/C++ programming, software development processes (version control, unit test, regression test, code review, etc.), delivering on time, presentation.

■ **Software Development Intern**, **Sina**, Beijing, China Dec. 2011 - Feb. 2012

- ✓ Efficiently found the root causes of some critical bugs in a mobile social network application and fixed them.
- ✓ Highly recognized by the colleagues for resolving critical issues quickly.
- ✓ **Related skills**: learn new things quickly, reach root causes and fix bugs in a short time.

Awards

- Queen's Graduate Award, Queen's University, 2014-2018.
- Conference Travel Award, Queen's University, 2015, 2018 (twice).
- China National Scholarship (for top 1% students), 2007, 2008.
- Academic Scholarship, Fudan University, 2009-2012.
- Academic Scholarship, Sun Yat-Sen University, 2005-2009.

Professional Services

- Reviewer for the Empirical Software Engineering Journal (EMSE).
- Co-Reviewer for the 28th International Conference on Computer Science and Software Engineering

(CASCON), 2018.