# SHIN HWEI TAN

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**Research Interests**

My current research is mainly focused on program testing and program repair. I have proposed new methods and developed research tools to facilitate dynamic code comment analysis using test case generation tool. I am currently looking at improving the existing techniques for program repair.

**Education**

**National University of Singapore**, Singapore

Ph.D., School of Computing, August 2012-present

- Thesis Topic: Automated repair of software regressions
- Adviser: Abhik Roychoudhury
- Current CAP: 4.5/5.00

**University of Illinois at Urbana-Champaign**, Champaign, IL

M.S., Computer Science, May 2012

- Thesis Topic: *@tComment: Testing Javadoc Comments to Detect Comment-Code Inconsistencies*
- Advisers:
  - Darko Marinov
  - Lin Tan
- Overall GPA: 3.91/4.00

B.S.(Hons), Computer Science, May 2010

- Thesis Topic: Theories/Parameterized tests for JUnit
- Adviser: Darko Marinov
- Overall GPA: 3.68/4.00

**Conference Publications**

1. J. Yi, D. Qi, S. H. Tan, A. Roychoudhury. Expressing and Checking Intended Changes via Software Change Contracts. In: International Symposium on Software Testing and Analysis (ISSTA 2013), pages TO APPEAR, Lugano, Switzerland, July 2013. (acceptance: 26%, 32/124)
2. S. H. Tan, D. Marinov, L. Tan, and G. T. Leavens. @tComment: Testing Javadoc Comments to Detect Comment-Code Inconsistencies. In: International Conference on Software Testing, Verification, and Validation (ICST 2012), pages 260-269, Montreal, Canada, April 2012. (acceptance: 27%, 39/145)
3. B. Daniel, D. Dig, T. Gvero, V. Jagannath, J. Jiaa, D. Mitchell, J. Nogiec, S. H. Tan, and D. Marinov. ReAssert: A Tool for Repairing Broken Unit Tests. In: International Conference on Software Engineering, Demonstrations Track (ICSE Demo 2011), pages 1010-1012, Honolulu, HI, May 2011. (acceptance: 37%, 22/60)

**Professional Activities**

- ISSTA 2014, Artifact Evaluation Committee

**Conference Presentations**

- ICST 2012, regular paper track, Montreal, Canada. (April 17-21, 2012)

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| Teaching Experience | **University of Illinois at Urbana-Champaign**, Champaign, IL<br>*Teaching Assistant,* August 2010 to May 2012<br>Teaching Assistant for CS242: Programming Studio Laboratory<br>• Spring 2012 (2 sections)<br>• Responsible for supervision of programming assignments presentation for 5-6 students per section<br>Teaching Assistant for CS427: Software Engineering I<br>• Fall 2010 and Fall 2011<br>• Responsible for 1-hour supervision of 2-hour office hours.<br>• Graded bi-weekly programming assignments for 20 groups of students<br>Teaching Assistant for CS428: Software Engineering II<br>• Spring 2011<br>• Provided support for online students through the Illinois Internet Computer Science Program(I2CS)<br>• Graded bi-weekly programming assignments for 20 groups of students<br>*Undergraduate Assistant for Railroad Department*, August 2007 to May 2009<br>• Carried out an independent project on automated web retrieval<br>• Maintained MS Access database for daily tank car accident reports<br>• Debugged and programmed using Visual Basic, Ruby and HTML |
| Working Experience | **Intel Corporation**, Penang, Malaysia<br>Summer Intern for Testing Hole Resolution(THR)    **June 2011 to August 2011**<br>• Developed and implemented automation for MS Windows script automation engine to improve efficiency in running automated tests.<br>• Implemented features and developed error handling for program featuring Perl, AutoIt and Tcl |
| Awards and Honors | • David J. Kuck Outstanding MS Thesis Award (2013)<br>• Singapore International Graduate Award (2012-2015)<br>• ACM-W Scholarship (2012)<br>• Malaysian Government Scholarship (2006-2010)<br>• Rockwell Collins Scholarship (2009)<br>• Motorola Academic Scholarship (2008) |
| Software Skills | Computer Programming:<br>• Java, C, C++, Visual Basic, Matlab<br>Version Control and Software Configuration Management:<br>• DVCS (Mercurial/MQ, Git/StGit), and VCS (CVS, SVN )<br>Software Test:<br>• Randoop, JUnit |
| Language Skills | Fluent in Mandarin, Cantonese, English and Malay |