

Jun-Wei Lin
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<http://castman.net>
<https://github.com/jwlin>

Research Interests

Software Testing, Software Engineering.

Education

- 09/2016 – present Ph.D. Student, Software Engineering, University of California, Irvine, CA, USA.
Advisor: Sam Malek.
- 09/2013 – 08/2016 Ph.D. Student, Computer Science, National Taiwan University, Taipei, Taiwan (Transferred to UCI)
Advisor: Farn Wang.
- 09/2006 – 06/2008 M.S., Computer Science, National Tsing Hua University, Hsinchu, Taiwan.
Thesis: Test suite reduction analysis with enhanced tie-breaking techniques.
Advisor: Chin-Yu Huang.
- 09/2002 – 06/2006 B.S., Computer Science, National Tsing Hua University, Hsinchu, Taiwan.

Publications

Journal Papers

- M. Poelchau, C. Childers, G. Moore, V. Tsavatapalli, J. Evans, C.-Y. Lee, H. Lin, **J.-W. Lin**, and K. Hackett, “The i5k Workspace@NAL—enabling genomic data access, visualization and curation of arthropod genomes,” *Nucleic Acids Research*, p. gku983, Oct. 2014.
- **J.-W. Lin** and C.-Y. Huang, “Analysis of test suite reduction with enhanced tie-breaking techniques,” *Information and Software Technology*, vol. 51, no. 4, pp. 679–690, Apr. 2009.

Conference Papers

- **J.-W. Lin**, F. Wang and Paul Chu, “Using Semantic Similarity in Crawling-based Web Application Testing,” *the 10th IEEE International Conference on Software Testing, Verification and Validation (ICST 2017)*, accepted to appear. (Acceptance rate: 27%)
- C.-Y. Wu, F. Wang, M.-H. Weng, and **J.-W. Lin**, “Automated Testing of Web Applications with Text Input,” in *2015 IEEE International Conference on Progress in Informatics and Computing*, Nanjing, 2015, pp. 343-347.
- **J.-W. Lin**, C.-Y. Huang, and C.-T. Lin, “Test suite reduction analysis with enhanced tie-breaking techniques,” in *4th IEEE International Conference on Management of Innovation and Technology (ICMIT 2008)*, 2008, pp. 1228–1233.

Others

- **J.-W. Lin** and F. Wang, “Using Semantic Similarity for Input Topic Identification in Crawling-based Web Application Testing.” arXiv: 1608.06549.

Research Projects

- 08/2015 – 12/2015 "Automatic Test Case Generation for HTML5 Apps", Institute for Information Industry, Taiwan.
Developed a fully automatic interface crawler and invariant checker for Firefox OS App.
<https://github.com/jwlin/b2g-monkey>
- 05/2014 – 05/2015 "i5k Workspace@NAL", Agricultural Research Service, United States Department of Agriculture.
Collaboratively developed an interactive visualization tool translating texts obtained from sequence similarity searching into sortable and searchable tables and graphs. Designed and implemented the task queuing mechanism. <https://i5k.nal.usda.gov/blast>
- 10/2013 – 02/2014 "ITRI Cloud Testing Service", Industrial Technology Research Institute, Taiwan.
Applied data and behavior mutation to test cases, leveraging computing power provided by ITRI.

Awards & Honors

- 2016 Chair's Award and Graduate Dean's Recruitment Fellowship, UC Irvine, CA, USA. (\$7,500)
2014 Government Fellowship for Studying Abroad, Ministry of Education, Taiwan.
A national fellowship of \$42,000/year for three years awarded to the top 1 applicant in EECS.

Professional Experience

- 07/2016 – 08/2016 *Software Engineering Intern*, QNAP Inc., Taipei, Taiwan.
Introduced automatic acceptance/regression testing flow for Q'Center, a centralized platform for managing multiple QNAP NAS. Shortened the regression cycle from days to hours. Automated manual and routine jobs in testing in a scalable manner.
- 05/2014 – 05/2015 *Research Intern*, National Agricultural Library, Beltsville, MD, USA.
Initiated and implemented continuous integration for software projects under development. Collaboratively designed and developed Django-Blast, a public web tool for gene identification. Conducted automated functional, regression and stress testing on web services.
- 06/2012 – 09/2013 *System Manager*, Ministry of Justice, Taipei, Taiwan.
Managed IT acquisition projects and worked with customers and contractors. Developed an online bug tracking system.
- 01/2011 – 05/2012 *IT Technician*, Taipei District Prosecutors Office, Taipei, Taiwan.
Tested and maintained computer equipment and programs. Developed a meeting room reservation system.
- 08/2009 – 12/2010 *IT Technician*, Yangming Senior High School, Taipei, Taiwan.
Diagnosed computer problems. Provided technical support.
- 02/2007 – 06/2007 *Teaching Assistant*, CS446102 Software Engineering, National Tsing Hua University, Taiwan.
Designed and graded all assignments. Gave 2 one-hour laboratory sessions.
- 07/2006 – 08/2006 *Software Engineering Intern*, Taiwan Semiconductor Manufacturing Company, Hsinchu, Taiwan.
Refactored an internal website.

Other Projects

AlphaTrip (Python)

A prototype using natural language processing and machine learning to categorize attractions near Tokyo and schedule trips. Collaboratively developed and demoed at the Big Data X Maker Hackathon, Taipei.

PTT Web Crawler (Python, Django)

A crawler and data parser for PTT website, the largest local online community in Taiwan.
<http://app.castman.net/ptt-web-crawler>

Bulletin Board for Government Job Opportunities (Django)

Data visualization for open data provided by Taiwan's government.
<http://opencpa.castman.net>

Skills

Programming languages: Python, JavaScript, Java, C++, C# (<https://github.com/jwlin>)
Languages: Mandarin, Taiwanese (native), English (professional)

Service/Activities

- 07/2008 – 06/2009 *Political Warfare Officer*, Compulsory Military Service of R.O.C. Navy, Taiwan.
09/2004 – 06/2005 *Captain*, Basketball Team of CS Department, NTHU
11/2004 – 01/2005 *Leader*, 2005 Taiwan Computer Science Basketball Cup Working Group