David LOSchool of Information Systems Singapore Management University

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Citizenship: Indonesia



Position(s) Held

01 Jan 2009 - Now	Assistant Professor School of Information Systems Singapore Management University
May 2008 - Dec 2008	Lecturer School of Information Systems Singapore Management University
Feb 2008 - Apr 2008	Research Intern Microsoft Research India Bangalore, India
Mar 2006 - Nov 2007	Teaching Assistant (PT) School of Computing National University of Singapore
Oct 2004 - Feb 2006	Research Assistant School of Computing National University of Singapore Project: A Language-based Approach to Financial Analysis

Education

Jan 2005 - Nov 2008	Doctor of Philosophy Computer Science National University of Singapore
Jul 2000 - Jul 2004	Bachelor of Engineering (Hons I) Computer Engineering Nanyang Technological University

Research Interests

1. Software Maintenance, Frequent Pattern Mining, Software Testing, Program Analysis, Program Comprehension and Legacy System, Automated Debugging

Thesis

- David Lo. Specification Mining: Methodologies, Theories and Applications. PhD Dissertation, National University of Singapore, November 2008
- 2. David Lo. Library of Biological Sequence Matching and Gene Parsing Routines. Final Year Project Report, Nanyang Technological University, May 2004

Awards, Recognition and Honors

- 1. President Graduate Fellowship, National University of Singapore, 2008
- 2. 2nd Position, ACM SIGPLAN Programming Language Design and Implementation (PLDI) Student Research Competition, 2007
- 3. Dean's Graduate Award, National University of Singapore, School of Computing, 2007
- 4. President Graduate Fellowship, National University of Singapore, 2007
- 5. Dean's List, Nanyang Technological University, School of Computer Engineering, 2004

Scholarships

- 1. Research Scholarship, National University of Singapore, 2006 2008
- 2. ASEAN Secondary Three Scholarship, 1998

Courses Taught - Undergraduate

- 1. IS203 Software Engineering, August 2008 December 2008
- 2. IS201 Object Oriented Application Development, January 2009 April 2009

Chapters in Books

1. "Mining Software Specifications", by David LO and Siau-Cheng KHOO, Encyclopedia of Data Warehousing and Mining, Second Edition, 2008

Journal Articles (Refereed)

1. "Mining temporal rules for software maintenance", by David LO, Siau-Cheng KHOO, and Chao LIU, 07/2008, 20, 4, *Journal of Software Maintenance and Evolution: Research and Practice*, John Wiley & Sons, Inc., 227 - 247, United States Of America

Conference Papers (Refereed)

- 1. "Efficient Mining of Closed Repetitive Gapped Subsequences from a Sequence Database", by Bolin DING, David LO, Jiawei HAN, and Siau-Cheng KHOO, 04/2009, Proceedings of the 25th International Conference on Data Engineering (ICDE'09) (to appear), Shanghai, China
- "Specification Mining of Symbolic Scenario-Based Models", by David LO and Shahar MAOZ, 11/2008, Proceedings of the 8th SIGSOFT-SIGPLAN International Workshop on Program Analysis for Software Tools and Engineering (PASTE), Atlanta, USA
- 3. "Hierarchical Inter-Object Traces for Specification Mining", by David LO and Shahar MAOZ, 10/2008, Proceedings of the Companion to the 23rd SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA) (Poster Track), Nashville, USA
- "Mining Scenario-Based Triggers and Effects", by David LO and Shahar MAOZ, 09/2008, Proceedings of the 23rd IEEE/SIGSOFT International Conference on Automated Software

- Engineering (ASE), L'Aquila, Italy
- 5. "Mining Past-Time Temporal Rules from Execution Traces", by David LO and Siau-Cheng KHOO, 07/2008, Proceedings of the 6th International Workshop on Dynamic Analysis (WODA), Seattle, USA
- "Mining and Ranking Generators of Sequential Pattern", by David LO, Siau-Cheng KHOO, and Jinyan LI, 04/2008, Proceedings of the 8th SIAM International Conference on Data Mining (SDM) , Atlanta, USA
- 7. "Efficient Mining of Recurrent Rules from a Sequence Database", by David LO, Siau-Cheng KHOO, and Chao LIU, 03/2008, Proceedings of the 13th International Conference on Database Systems for Advance Applications (DASFAA), New Delhi, India
- 8. "Mining Modal Scenarios-Based Specifications from Execution Trace of Reactive Systems", by David LO, Shahar MAOZ, and Siau-Cheng KHOO, 11/2007, Proceedings of the 22nd IEEE/ACM International Conference on Automated Software Engineering (ASE), Atlanta, USA
- "Mining Modal Scenarios from Execution Traces", by David LO, Shahar MAOZ, and Siau-Cheng KHOO, 10/2007, Proceedings of the Companion of the 22nd ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications (Poster Track), Montreal, Canada
- 10. "Mining Temporal Rules from Program Execution Traces", by David LO, Siau-Cheng KHOO, and Chao LIU, 10/2007, Proceedings of the 3rd International Workshop on Program Comprehension through Dynamic Analysis (PCODA), Vancouver, Canada
- 11. "Efficient Mining of Iterative Patterns for Software Specification Discovery", by David LO, Siau-Cheng KHOO, and Chao LIU, 08/2007, 460-469, Proceedings of the 13th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), San Jose, USA
- 12. "SMArTIC: Towards Building an Accurate, Robust and Scalable Specification Miner", by David LO and Siau-Cheng KHOO, 11/2006, Proceedings of the 14th ACM SIGSOFT Symposium on Foundations of Software Engineering (SIGSOFT FSE), Portland, USA
- 13. "QUARK: Empirical Assessment of Automation-based Specification Miners", by David LO and Siau-Cheng KHOO, 10/2006, *Proceedings of the 13th IEEE Working Conference on Reverse Engineering (WCRE)*, Benevento, Italy

Professional Activities

- 1. Reviewer, ACM 16th Conference on Information and Knowledge Management (CIKM), 2007
- Reviewer, IEEE 23rd International Conference on Software Maintenance (ICSM), 2007
- 3. Reviewer, Encyclopedia of Data Warehousing and Mining, 2007
- 4. Reviewer, ACM International Symposium on Software Testing and Analysis (ISSTA), 2008
- 5. Reviewer, IEEE Automated Software Engineering Journal, 2008
- 6. Reviewer, IEEE Conference on Industrial Electronics and Applications (ICIEA), 2008
- 7. PC Member, IEEE International Conference on Computational Intelligence and Security (CIS), 2008