

CURRICULUM VITAE

Yu Chin Cheng

Dept. of Computer Science and Information Engineering

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EDUCATION

- PhD School of Computer Science, University of Oklahoma, Norman, OK
(A New Method for Quadratic Curve Detection Using K-RANSAC with Acceleration Techniques; Advisor: Samuel C. Lee). 1993.
- MSE Dept. of Computer Science, Johns Hopkins University, Baltimore, MD.
1990.
- Diploma National Taipei Institute of Technology, Taiwan. 1985.

PROFESSIONAL EXPERIENCE

- Aug 2007 ~ present Professor, Dept. of Computer Science and Information Engineering, National Taipei University of Technology, Taiwan
- July 2011 ~ present Director of the Board of Governors, Software Engineering Association of Taiwan
- Aug 2000 ~ Jul 2007 Associate Professor, Dept. of Computer Science and Information Engineering, National Taipei University of Technology, Taiwan
- Aug 2002 ~ Jul 2004 Chair, Dept. of Computer Science and Information Engineering, National Taipei University of Technology, Taiwan
- Dec 1993 ~ Jul 2000 Associate Professor, Dept. of Electronic Engineering, National Taipei University of Technology, Taiwan
- Aug 1993 ~ Dec 1993 Lecturer, Dept. of Electronic Engineering, National Taipei University of Technology, Taiwan

RESEARCH INTERESTS

Agile Software Development
Software Architecture and Design
Software Testing
Pattern Languages
Pattern Analysis

HONORS AND AWARDS

Distinguished Teaching Award, College of Mechanical and Electrical Engineering, National Taipei University of Technology, Taiwan, 2006

RECENT COURSES

Undergraduate level:

Object-Oriented Programming (C++)

Artificial Intelligence (with Prolog)

Graduate level:

Software Architecture

Software Lifecycle Management (Scrum)

Design Patterns

Object-Oriented Design and Analysis

RECENT GRANTS

P-1 Integrated Cloud Testing: Platform and Service Development, 2012/8~2013/7, National Science Council, Taiwan.

P-2 Jumpstarting Scrum and Software Engineering Best Practices for ICT/CE Product Developments: a Three-year Project; 2009/12~2012/11, Ministry of Economic Affairs, Taiwan.

P-3 Achieving Software Fault Tolerance and Diagnosability with Exception Handling: Pattern Language, Object-Oriented Design, and Diagnosis Tool, 2009/8~2012/7, National Science Council, Taiwan.

P-4 A New Approach for Supporting Design by Contract in the Java Language, 2006/8~2009/7, National Science Council, Taiwan.

SELECTED RECENT PUBLICATIONS

Journal papers:

J-1 Jung-Sing Jwo, Tien-Song Hsu, and Yu Chin Cheng, "Jumpstarting Application Lifecycle Management: a New Approach with Tool Support, " scheduled for publication in Journal of Information Science and Engineering, 29(3). May 2013.

J-2 Jonathan Lee and Yu Chin Cheng, "Change the Face of Software Engineering Education: a Field Report from Taiwan," Information and Software Technology 53 (2011) 51–57.

J-3 Jung-Sing Jwo and Yu Chin Cheng, "Pseudo Software: a Mediating Instrument for Modeling Software Requirements," Journal of Systems

and Software, 83 (2010) 599–608.

- J-4 Chien-Tsun Chen, Yu Chin Cheng, Chin-Yun Hsieh, and Tien-Song Hsu, "Delivering Specification-Based Learning Processes with Service-Oriented Architecture: A Process Translation Approach", *Journal of Information Science and Engineering*, vol. 25, No. 5, pp. 1373-1389, September 2009.
- J-5 Chien-Tsun Chen, Yu Chin Cheng, Chin-Yun Hsieh, Tien-Song Hsu, "JCIS: An Open Source System for Continuous Integration with Java Technology", *Journal of Software Engineering Studies*, vol. 4 no. 1, pp. 56-65, June 2009.
- J-6 Chien-Tsun Chen, Yu Chin Cheng, Chin-Yun Hsieh, and I-Lang Wu, "Exception Handling Refactorings: Directed by Goals and Driven by Bug Fixing," *Journal of Systems and Software*, Vol. 82, No. 2, Feb 2009, pp. 333-345.
- J-7 Chien-Tsun Chen, Yu Chin Cheng, and Chin-Yun Hsieh, "Contract Specification in Java: Classification, Characterization, and a New Marker Method," *IEICE Transactions on Information and Systems*, E91-D(11), Nov 2008, pp. 2685-2692.
- J-8 W.-K. Chen and Y. C. Cheng, "Teaching Object-Oriented Programming Lab with Computer Game Programming," *IEEE Transactions on Education*, vol. 50, no. 3, pp. 197-203, Aug 2007.
- J-9 Y. C. Cheng, "The Distinctiveness of a Curve in a Parameterized Neighborhood: Extraction and Applications," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 28, no. 8, pp. 1215-1222. Aug 2006.
- J-10 Y. C. Cheng and Y.-S. Liu, "Polling an Image for Circles by Random Lines," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 25, no. 1, pp.125-130. Jan 2003.

Conference papers:

- C-1 Chin-Yun Hsieh, Yu Chin Cheng and Chien-Tsun Chen, "Emerging Patterns of Continuous Integration for Cross-Platform Software Development," *AsianPLoP 2011: 2nd Asian Conference on Pattern Languages of Programs*, Oct 5-7, 2011, Tokyo, Japan
- C-2 Jung-Sing Jwo and Yu Chin Cheng, "Performance Improvement for an SOA Based Enterprise Application Using Service Redirection," *4th IEEE International Symposium on Service-Oriented System Engineering (SOSE 2008)*, Jhongli, Taiwan, Dec 18~19, 2008.
- C-3 Y. C. Cheng, P.H. Ou, C.T. Chen, T.S. Hsu, "A Distributed System for

- Continuous Integration with JINI," 14th International Conference on Distributed Multimedia Systems Hyatt Harborside at Logan Int'l Airport, Boston, USA September 4 ~ September 6, 2008.
- C-4 Jung-Sing Jwo and Yu Chin Cheng, "Pseudo Software: a New Concept for Iterative Requirement Development and Validation," 14th Asia-Pacific Software Engineering Conference, December 5~7, 2007, Nagoya, Japan.
- C-5 Yu Chin Cheng, Chien-Tsun Chen, and Chin-Yun Hsieh, "ezContract: Using Marker Library and Bytecode Instrumentation to Support Design by Contract in Java," 14th Asia-Pacific Software Engineering Conference, December 5~7, 2007, Nagoya, Japan.
- C-6 C.-T. Chen, Y. C. Cheng, and C.-Y. Hsieh, "Towards a Pattern Language Approach to Establishing Personal Authoring Environments in E-Learning," accepted by the Sixth IASTED International Conference on Web-based Education (WBE 07), March 14-16, 2007, Chamonix, France.
- C-7 C.-T. Chen, Y. C. Cheng, and C.-Y. Hsieh, "A Scenario-Based Approach for Modeling Abnormal Behaviors of Dependable Software Systems," Proceedings of the 2006 International Computer Symposium (ICS 06), pp. 483-488, December 6-6, 2006, Taipei, Taiwan.
- C-8 Y. C. Cheng, C.-T. Chen, and J.-S. Jwo, "Exception Handling: An Architecture Model and Utility Support," Proceedings of the 12th Asia-Pacific Software Engineering Conference, Dec 15-17, 2005, pp. 359-366.
- C-9 M.-C. Chen, C.-T. Chen, Y. C. Cheng, and C.-Y. Hsieh, "On the Development and Implementation of a Sequencing Engine for IMS Learning Design Specification," 5th IEEE International Conference on Advanced Learning Technologies (ICALT 2005), July 5-8, 2005.
- C-10 C.-T. Chen and Y. C. Cheng, "A Pattern Language for Personal Authoring in E-Learning", 11th Conference on Pattern Languages of Programs (PLoP2004), Sep. 8-12, 2004.

PROFESSIONAL SOCIETY MEMBERSHIPS

IEEE Computer Society

ACM

IEICE (Japan)

Software Engineering Association of Taiwan (SEAT)