

CURRICULUM VITAE

Yu Chin Cheng

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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)
- MSE Dept. of Computer Science, Johns Hopkins University, Baltimore, MD
- Diploma National Taipei Institute of Technology, Taiwan

PROFESSIONAL EXPERIENCE

- Aug 2007 ~ present Professor, Dept of Computer Science and Information
Engineering, National Taipei University of Technology,
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

- Pattern Analysis
- Software Architecture and Design
- Pattern Languages
- E-Learning systems and technology

HONORS AND AWARDS

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

PUBLICATIONS

Journal Papers:

- J-1 Y.H. Kao, J.S. Jwo, C.Y., Hsieh, and Y.C. Cheng, (1994.12) "A

Comparative Study of Group Decision Support Systems and Electronic Meeting Systems”, Journal of Information Management. Vol.2, No.1, pp. 12-20.

- J-2 Yu Chin Cheng and Samuel C. Lee, (1995.05) “A new method of quadratic curve detection using K-RANSAC with accelerating techniques,” Pattern Recognition, Vol.28, No.5, pp. 663-682. (SCI)
- J-3 Y.-H. Kao, J.-S. Jwo, C.-Y. Hsieh, and Y.C. Cheng, (1997.09), “A Management Scheme for Electronic Meeting System,” Journal of Computers vol. 9, No, 3, pp.1-10.
- J-4 C.Y. Hsieh, P.S. Chang, Y.C. Cheng and J.S. Jwo, (1997.03), “Performance Dependency Modeling for Ada Programs Based on Module Invocation Mechanisms,” Journal of the Chinese Institute of Electrical Engineering, Vol.20, No.31, pp. 235-245. (EI)
- J-5 J.-S. Jwo, C.-Y. Hsieh, and Y.C. Cheng, (2000.01) “Properties and Embeddings of Interconnection networks based on the Hexcube,” Journal of Information Science and Engineering, vol. 16, No. 1, pp. 81-95, 2000. (SCI-expanded)
- J-6 Y. C. Cheng and Y.-S. Liu (2003.01), “Polling an Image for Circles by Random Lines,” IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 25, no. 1, pp.125-130. (SCI)
- J-7 Y. C. Cheng (2006.08), “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. (SCI)
- 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, August 2007..
- J-9 Shih-Hsuan Yang, Fu-Min Jheng, and Yu Chin Cheng, “Two-dimensional adaptive image stabilization,” IEE Electronics Letters, vol . 43, no. 8, pp. 446-448, 2007.
- J-10 I.-Y. Chen, Yu Chin Cheng, W.-K. Chen, Y.-H. Wang, and P.-Y. Ting, “Improving Educational Quality and Industrial Competitiveness through Web-Based Software Engineering Course Development for Universities in Taiwan,” Journal of Software Engineering Studies, vol. 2 no. 1, pp. 14-23, March 2007.

Conference papers:

- C-1 Y. C. Cheng and Samuel C. Lee, 1992, “A fast algorithm for quadratic curve detection,” in the Proceedings of International Computer

- Symposium (ICS'92), Taichung, Taiwan, pp. 1143-1149.C-24
- C-2 Y. C. Cheng, Le Gruenwald, G. Ingels, and M. T. Thakkar, 1993, "Evaluating partitioning techniques for main memory database: horizontal and single vertical", in the Proceedings of the Fifth International Conference on Computing and Information (ICCI'93), Ontario, Canada.
- C-3 J. S. Jwo, S. Lakshmiarahan, C. Y. Hsieh, and Y. C. Cheng, 1994, "On relatives of Star Graph", Proceedings of the International Computer Symposium, Hsin-Chu, Taiwan, pp.272-276.
- C-4 Y. C. Cheng and Samuel C. Lee, 1994, "A new method of quadratic curve detection using K-RANSAC with accelerating techniques", Proceedings of International Symposium on Speech, Image Processing and Neural Networks (ISSIPNN'94), Hong Kong, pp.515-518.
- C-5 Y. H. Kao, J. S. Jwo, C. Y. Hsieh, Y. C. Cheng, 1994, "A Management Protocol for Electronic Meeting Systems", Proceedings of the 5th International Symposium on Information Management Systems, Taipei, Taiwan, pp.12-18.
- C-6 C. Y. Hsieh, Y. C. Cheng, and J. S. Jwo, 1995.05, "An Approach to Controlling the Order of Events in a Distributed System", Proceedings of the IEEE IACC-95, Taipei, Taiwan, pp.760-764.
- C-7 J. S. Jwo, C. Y. Hsieh, and Y. C. Cheng, 1995.07, "Properties and Embedding of Interconnection Networks Based on Hexcubes", Proceedings of the ICYCS'95, Beijing, P. R. China.
- C-8 C. Y. Hsieh, Y. C. Cheng, and J. S. Jwo, 1995, "Enforcing Actual Temporal Order among Events in a Distributed System," Proceedings of the ICYCS'95, Beijing, P. R. China
- C-9 J. S. Jwo, C. Y. Hsieh, and Y. C. Cheng, 1995.09, "On the Effect of Granularity in LAN-based Distributed Computing", CD-ROM Proceedings of High Performance Computing-Asia, Taipei, Taiwan
- C-10 C. Y. Hsieh, Y. C. Cheng and J. S. Jwo, 1996.11, "Adding Application Level Temporal and Spatial Constraints to WWW-based Distance Learning", the 11th International Telecommunication Symposium (ITS'96), Taipei, Taiwan, pp.157-162.
- C-11 J. S. Jwo, Y. C. Cheng and C. Y. Hsieh, 1996, "On the Performance Issues of Clustered Distributed Computing", Proceedings of the 11th International Conference on System Engineering (ICSE'96), Las Vegas, pp. 426-431.
- C-12 J. S. Jwo, Y. C. Cheng, and C. Y. Hsieh, 1997.12, "On Deciding

- Granularity for Optimal Speedup for Solving Data Parallel Problems with Clustered Distributed Computing”, Proceedings of the 3rd International Symposium on Parallel Architectures, Algorithms, and Networks (I-SPAN’97). pp. 144-149.
- C-13 Y.C. Cheng and Y.-S. Liu, “A New Sampling method for Randomized Curve Detection,” Proceedings of the International computer Symposium, workshop on Image Processing and Character recognition, pp.1328-143.
- C-14 C.-Y. Hsieh, Y. C. Cheng and J.-S. Jwo, 1998.12, “ A Computer-Aided Multimedia application Design System, ” Proceedings of the International Symposium on Multimedia Information Processing (ISMIP98) , pp.167-172.
- C-15 Y. C. Cheng and Y.-S. Liu, 1998.12, “A New Sampling Method for Randomized Curve Detection,” Proceedings of the International Computer Symposium, Workshop on Image Processing and Character Recognition, pp. 138-143.
- C-16 Y. C. Cheng and Y.-S. Liu, 2000.01, “A New Polling Method and Coaxial Transform for Robust Circle Detection,” Proceedings of the Fourth Asia Conference on Computer Vision (ACCV2000), pp. 336-340.
- C-17 Y. C. Cheng, "Testing for Curves in a Binary Image," Proceedings of 7th conference on Digital Image Computing - Techniques and Applications (DICTA-2003), Sydney, Australia, December 10-12, 2003, pp. 703-710.
- C-18 C.-T. Chen and Y. C. Cheng, "A Pattern Language for Personal Authoring in E-Learning", Published in the 11th Conference on Pattern Languages of Programs (PLoP2004), Sep. 8-12, 2004.
- C-19 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," Accepted by the 5th IEEE International Conference on Advanced Learning Technologies (ICALT 2005), July 5-8, 2005.
- C-20 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-21 Y. C. Cheng, "The Probabilistic Hough Transform with Localized Search Guided by Evidence Clusters," IEEE 2006 Southwest

- Symposium on Image Analysis and Interpretation, Denver, CO, USA. March 27-28, 2006.
- C-22 N.L. Hsueh, J.Y. Kuo, Y. C. Cheng, Jonathan Lee, P.H. Chu, "Supporting CMMI-Based Process Improvement with Advanced Software Engineering Technologies," accepted by the 36th International Conference on Computers and Industrial Engineering, Taipei, Taiwan. June 20-23, 2006.
- C-23 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-24 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-25 Yu Chin Cheng, Chien-Tsun Chen, and Chin-Yun Hsieh, "ezContract: Using Marker Library and Bytecode Instrumentation to Support Design by Contract in Java," accepted by 14th Asia-Pacific Software Engineering Conference, December 5~7, 2007, Nagoya, Japan.
- C-26 Jung-Sing Jwo and Yu Chin Cheng, "Pseudo Software: a New Concept for Iterative Requirement Development and Validation," accepted by 14th Asia-Pacific Software Engineering Conference, December 5~7, 2007, Nagoya, Japan.

PROFESSIONAL SERVICE

Executive Associate Editor: Journal of Software Engineering Studies (published by Software Engineering Association of Taiwan)

Conference Program Service:

Member of Program Committee, 12th International Conference on Fuzzy Theory and Technology (FTT), 2007

Member of Program Committee, International Computer Symposium (ICS), International Workshop on Software Engineering, Databases, and Knowledge Discovery, 2006.

Member of Program Committee, 11th International Conference on Fuzzy Theory and Technology (FTT), 2006

Session chair: Service Oriented Architecture (I) and Software Architecture (II); in 12th Asia-Pacific Software Engineering Conference (APSEC 2005), Dec 15-17, 2005.

Program chair: First Taiwanese Conference on Software Engineering (TCSE I), 2005.

General co-chair: Second Taiwanese Conference on Software Engineering (TCSE II), 2006.

Program co-chair: Third Taiwanese Conference on Software Engineering (TCSE III), 2007

PROFESSIONAL SOCIETY MEMBERSHIPS

IEEE Computer Society

ACM

Software Engineering Association of Taiwan (SEAT)