

# Shih-Hsi “Alex” Liu

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## **EDUCATION**

- Ph.D., Computer & Information Sciences, University of Alabama at Birmingham, USA, Aug 2007
- M.S., Computer Science, University of Houston, Houston, USA, Dec 2002
- B.S., Computer & Information Science, National Chiao-Tung University, Taiwan, June 2000

## **POSITION AND EMPLOYMENTS**

- Associate Professor, California State University, Fresno, 2013-present
- Assistant Professor, California State University, Fresno, 2007-2013
- Research Assistant, University of Alabama at Birmingham, 2007
- Software Engineer (Intern), The MathWorks, 2006
- Lecturer/Teaching Assistant, University of Alabama at Birmingham, 2003-2006

## **TEACHING EXPERIENCE**

- California State University, Fresno, 2007 – present
- University of Alabama at Birmingham, 2003 – 2006

## **SELECTED SYNERGISTIC ACTIVITIES**

### **Scholarly Activities**

- Editorial Board, Applied Soft Computing, Elsevier (5-year impact factor 3.288)
- Editorial Board, International Journal on Advances in Intelligent Systems
- Editorial Board, International Journal of Artificial Intelligence and Application
- Guest Co-Editor, A Special Issue on Emerging Synergies of Artificial Intelligence and Software Engineering, International Journal of Software Engineering and Knowledge Engineering, 2012 and 2015
- (Co-)chairs in 8 international conferences in software engineering and/or artificial intelligence areas
- Program/Technical committee/reviewers of 90+ international conferences/journals in software engineering and/or artificial intelligence areas
- Advisor of 20+ master projects in software engineering and/or artificial intelligence areas

### **University Services**

- Graduate Coordinator, Department of Computer Science, 2011-present
- Curriculum Committee, College of Science and Mathematics, Fresno State, 2010-present
- Research Committee, College of Science and Mathematics, Fresno State, 2008-2010
- Academic Senator, Fresno State, 2009 – 2011, 2015
- President’s Task Force on Internationalization, Fresno State, 2012
- Mobile Strategy Committee, Fresno State, 2012

### **Educational/Professional Outreach**

- The Computer Exploration Summer Camp, Director, 2008-2009, 2011-2012
- Central California GiveCamp, Director, 2012-2013
- Central California Software Partnership, Advisory Board, 2012-present
- Department Liaison of Service-Learning Software Projects, 2008-2014
  - Mentored 10+ Service-Learning software projects for local non-profit organizations

## SELECTED HONORS/AWARDS/GRANTS

- Best Paper, the 5<sup>th</sup> Conf. on Bioinspired Optimization Methods & their Applications
- Best Paper, the 4<sup>th</sup> Conf. on Bioinspired Optimization Methods & their Applications
- Best Paper, the 2<sup>nd</sup> Conf. on Bioinspired Optimization Methods & their Applications
- Best Paper, the 1<sup>st</sup> Workshop. on Data Semantics for Multimedia Systems and Applications
- Research, Scholarship, and Creative Activity Award from Chancellor office of California State University
- Research, Scholarship, and Creative Activity Award from College of Science and Math, Fresno State
- 3<sup>rd</sup> Prize, the Doctoral Paper Division of the ACM-Mid Southeast Conference
- Service-Learning Curriculum Development Grants awarded by Fresno State (Role: PI)
- Grants for Enhancing Learning and Teaching awarded by Fresno State (Role: PI)
- Instructional Equipment Grant awarded by College of Science and Math, Fresno State (Role: PI)
- “Redesign CSci 40 and CSci 41 sequence,” awarded by Academic Technology & Innovation, Fresno State (Role: PI)
- Graduate Assistantship Awards, awarded by Fresno State (Role: PI)
- Undergraduate Research Awards, awarded by Fresno State (Role: PI)
- “Undergraduate Education Program,” awarded by Keck Foundation (Role: Key personnel)

## SELECTED PUBLICATIONS

- Matej Crepinsek, **Shih-Hsi Liu**, Luka Mernik, and Marjan Mernik, “Is a comparison of results meaningful from the inexact replications of computational experiments?” *Soft Computing*, (20)1: 223-235, 2016.
- Amany Alnahdi, Austin Melton, **Shih-Hsi Liu**, “Web Service Description Quality Function Deployment (WSDQFD): Systematic Analytical Approach,” *SERVICES* 2016: 132-133, 2016.
- Marjan Mernik, **Shih-Hsi Liu**, Dervis Karaboga, and Matej Crepinsek, “On clarifying misconceptions when comparing variants of Artificial Bee Colony (ABC) Algorithm by offering a new implementation,” *Information Sciences*, 291: 115-127, 2015.
- Amany Alnahdi, **Shih-Hsi Liu**, and Austin Melton, “Enhanced Web Service Matchmaking: A Quality of Service Approach”, *IEEE Services*, pages 341-348, 2015.
- Matej Crepinsek, **Shih-Hsi Liu**, and Marjan Mernik, “Replication and Comparison of Computational Experiments in Applied Evolutionary Computing: Common Pitfalls and Preliminary Guidelines to Avoid Them,” *Applied Soft Computing*, 19: 161-170, 2014.
- **Shih-Hsi Liu**, Marjan Mernik, Dejan Hrncic, and Matej Crepinsek, “A Parameter Control Method of Evolutionary Algorithms using Exploration and Exploitation Measures with a Practical Application for Fitting Sovova's Mass Transfer Model,” *Applied Soft Computing*, 13(9): 3792-3805, 2013.
- Matej Crepinsek, **Shih-Hsi Liu**, and Marjan Mernik, “Exploration and Exploitation in Evolutionary Algorithms: A Survey,” *ACM Computing Surveys*, 45(3): Article 35, 2013.
- Deepa Raka, **Shih-Hsi Liu**, and Marjan Mernik, “Interoperable EMR Message Generation: A Model-Driven Software Product Line Approach,” the 24th International Conference on Software Engineering and Knowledge Engineering (SEKE'12), pages 537-540, 2012.
- Matej Crepinsek, **Shih-Hsi Liu**, and Luka Mernik, “A Note on Teacher-Learner-Based Optimization Alogrithm,” *Information Sciences*, 212: 79-93, 2012.
- **Shih-Hsi Liu**, Adam Cardenas, Marjan Mernik, Barrett R. Bryant, Jeff Gray, and Xang Xiong, “Domain-Specific Language Implementation using Service-Oriented Architecture,” *An International Journal of Multiagent and Grid Systems*, 8(1): 19-44, 2012.
- Matej Crepinsek, Marjan Mernik, and **Shih-Hsi Liu**, “Analysis of Exploration and Exploitation in Evolutionary Algorithms by Ancestry Trees,” *International Journal of Innovative Computing and Applications*, 3(1): 11-19, 2011.
- **Shih-Hsi Liu**, Yu Cao, Ming Li, Pranay Kilaru, Thell Smith, and Shaen Toner, “A Biomedical Multimedia System under SOA,” *Journal of Multimedia*, 5(4): 352-360, 2010.
- **Shih-hsi Liu**, Adam Cardenas, Xang Xiong, Marjan Mernik, Barrett R. Bryant, Jeff Gray, “A SOA Approach for Domain-Specific Language Implementation,” The IEEE 6th World Congress on Services, pages 535-542, 2010.
- **Shih-Hsi Liu**, Marjan Mernik, and Barrett R. Bryant, “To Explore or to Exploit: An Entropy-Driven Approach for Evolutionary Algorithms,” *International Journal of Knowledge-based and Intelligent Engineering Systems*, 13(3-4): 185-206, 2009.
- **Shih-Hsi Liu**, Marjan Mernik and Barrett R. Bryant, “Entropy-Driven Parameter Control for Evolutionary Algorithms,” *Informatica: An International Journal of Computing and Informatics*, 31(1): 41-50, 2007.