

# Hsin-yi Jiang

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## Education

### 2004-2008 | **Ph.D.**

- **Major:** Computer Science, Iowa State University, IA, USA
- **Advisor:** Prof. Carl K. Chang
- **Thesis Work:** My dissertation is about the link from theory of Genetic Algorithm to real world applications, especially in Software Engineering problem domains. For more detailed information, please read my research statement.

### 2002-2004 | **Studied Computer Science Related Courses**

- **Major:** Computer Science, Northwestern Polytechnic University, CA, USA

### 2000-2002 | **M.S.**

- **Major:** Applied Mathematics, National Chung Cheng University, Taiwan
- **Advisor:** Prof. Yu-ling Lai
- **Thesis work:** My Master thesis is about the inertia of matrices, which is related to the signs of eigenvalues of matrices. I attempted to generalize the properties of symmetric matrices to normal matrices, and then to any arbitrary matrix. Some methods in numerical analysis, such as Lanczos algorithm, are applied in the thesis.
- **Award:** **Phi Tau Phi Award** which is for outstanding, ranked number one, students in graduate school (National Chung Cheng University), 2002.

### 1995-1999 | **B.S.**

- **Major:** Mathematics, National Taiwan Normal University, Taiwan

## Experience

### 2008 | **Fast Abstract Chair, Reviewer**

IEEE International Computer Software and Applications Conference

### 2007-2008 | **Will be an instructor for CS 319x Software Construction**

Iowa State University, USA

### 2007 | **Registration Chair, Webmaster, and Student Volunteer**

IEEE International Computer Software and Applications Conference

### 2007 | **Student Volunteer**

IEEE International Conference on Web Services

**2007 | Reviewer**

IEEE International Computer Software and Applications Conference  
IEEE Congress on Evolutionary Computation

**2006-2007 | Webmaster (Work for Computer Science Department)**

Iowa State University, USA

**2006 | Reviewer, and Student Volunteer**

IEEE International Computer Software and Applications Conference

**2005-2006 | Teaching Assistant (for courses: Software Construction, and Computer Literacy and Applications)**

Iowa State University, USA

**2005 | Student Volunteer**

IEEE International Conference on Web Services  
IEEE International Conference on Service Computing

**2004-2005 | Research Assistant (Work for Prof. Carl K. Chang)**

Iowa State University, USA

**2001-2002 | Research Assistant (Work for Prof. Yu-ling Lai)**

National Chung Cheng University, Taiwan

**2000-2001 | Teaching Assistant (for course: Advanced Calculus)**

National Chung Cheng University, Taiwan

**1999-2000 | Junior High School Math Teacher**

Yuan-Lin Junior High School, Taiwan

## **Publications**

### **Journal Papers**

- **Hsin-yi Jiang**, et al., “A Study on the Theory of Genetic Algorithms As It Pertains to Real World Applications”, to be submitted to *IEEE Transactions on Evolutionary Computation (TEC)*, 2008.
- Carl K. Chang, **Hsin-yi Jiang**, Di Yu, Dan Zhu, and Yujia Ge, “Time-line Based Model for Software Project Scheduling with Genetic Algorithms”, To appear in *Information and Software Technology (IST)*, 2008.

### **Conference Papers**

- **Hsin-yi Jiang**, Tien Nguyen, Ing-xiang Chen, Hojun Jaygarl, and Carl K. Chang, “Incremental Latent Semantic Indexing for Effective, Automatic Traceability Link Evolution Management”, to be submitted to *IEEE/ACM International Conference on Automated Software Engineering (ASE)*, 2008.

- **Hsin-yi Jiang**, Katsunori Oyama, Carl K. Chang, “An Input Adjustable Tree Algorithm for the Flag Problem of Evolutionary Testing”, submitted to *COMPSAC*, 2008.
- **Hsin-yi Jiang**, Carl K. Chang, “An Evaluation Metric for the Applicability of GAs to Optimization Problems”, submitted to *GECCO*, 2008.
- **Hsin-yi Jiang**, Carl K. Chang, Dan Zhu, and Shuxing Cheng, “A Foundational Study on the Applicability of Genetic Algorithm to Software Engineering Problems”, *IEEE Congress on Evolutionary Computation (CEC)*, pp.2210-2219, 2007.
- **Hsin-yi Jiang**, Carl K. Chang, Tien Nguyen, and Fei Dong, “Traceability Link Evolution Management with Incremental Latent Semantic Indexing”, *IEEE International Computer Software and Applications Conference (COMPSAC)*, pp. 309-316, 2007. **The acceptance rate is 18%.**
- **Hsin-yi Jiang**, Carl K. Chang, Jinchun Xia, and Shuxing Cheng, “A History-Based Automatic Scheduling Model for Personnel Risk Management”, *COMPSAC – KASET Workshop*, pp. 361-366, 2007.
- **Hsin-yi Jiang**, “Can the Genetic Algorithm Be a Good Tool for Software Engineering Searching Problems?”, *COMPSAC – Doctoral Symposium*, pp. 362-364, 2006.

## References

- Carl K. Chang,  
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- Dan Zhu,  
Dean's Faculty Fellow in MIS and Associate Professor  
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(Adjunct Professor for Department of Computer Science)  
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