

## CURRICULUM VITAE

### LI-CHIOU CHEN

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Pace University  
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#### EDUCATION

- 09/98-08/03* Ph. D., Engineering and Public Policy  
Carnegie Mellon University (CMU), Pittsburgh, PA  
Dissertation title: Computational Models for Defenses against Internet-based Attacks.  
Ph.D. Committee:  
Dr. Kathleen Carley (chair), Institute for Software Research International, School of  
Computer Science, CMU  
Dr. Benoit Morel, Department of Engineering and Public Policy, CMU  
Dr. David Krackhardt, Heinz School of Management and Public Policy, CMU  
Dr. Thomas Longstaff, John Hopkins University
- 09/98-12/00* M.S., Engineering and Public Policy  
Carnegie Mellon University, Pittsburgh, PA
- 09/92-06/94* M.B.A., Management Information Systems  
National Chengchi University, Taipei, Taiwan
- 09/88-06/92* B.B.A., Management Information Systems  
National Chengchi University, Taipei, Taiwan

#### EMPLOYMENT

- 08/04-Current* Assistant Professor  
Information Systems, Seidenberg School of Computer Science and Information Systems  
Pace University
- 09/03-07/04* Post-doctorate Research Fellow  
Institute for Software Research International, CMU
- 01/01-08/03* Research Assistant  
Center for Computational Analysis of Social and Organizational Systems, CMU
- 01/00-12/00,*  
*09/01-12/01* Teaching Assistant  
Information Systems Program & Engineering and Public Policy, CMU
- 08/99-01/00* Research Assistant  
Computer Emergency Response Team/Coordination Center, CMU
- 08/05-07/98* Software Engineer & Database Administrator  
Computer Center, National Chengchi University  
Taipei, Taiwan
- 06/04-07/95* Market Analyst  
Corporation Marketing Department, Acer Incorporation  
Taipei, Taiwan

## SCHOLARSHIP

### Journals

**Li-Chiou Chen**, Kathleen M. Carley, Douglas Fridsma, Boris Kaminsky, and Alex Yahja (2006). "Model Alignment of Anthrax Attack Simulations," *Decision Support Systems* in the special issue on Intelligence and Security Informatics, Vol 41, Issue 3, March 2006, pp. 654-668.

Kathleen M. Carley, Douglas Fridsma, Elizabeth Casman, Alex Yahja, Neal Altman, **Li-Chiou Chen**, Boris Kaminsky, and Demian Nave (2006). "BioWar: Scalable Agent-based Model of Bioattacks," *IEEE Transactions on Systems, Man and Cybernetics-Part A*, Vol36, Issue 2, March 2006, pp.256-265.

**Li-Chiou Chen** and Kathleen M. Carley (2004). "The Impact of Countermeasure Spreading on the Propagation of Computer Viruses," *IEEE Transactions on Systems, Man and Cybernetics-Part B: Cybernetics*, Vol.34, No.2, pp. 823-833, April 2004.

**Li-Chiou Chen**, Thomas. A. Longstaff and Kathleen M. Carley (2004). "Characterization of DDOS Defense Mechanisms," *Computers & Security*, Vol.23, No. 8, pp. 665-678, 2004.

**Li-Chiou Chen**, Thomas. A. Longstaff and Kathleen M. Carley (2004). "The Economic Incentives of Providing Network Security Defenses on the Internet Infrastructure," *Journal of Information Technology Management*, Vol XV, No 3-4, pp. 1-13, December 2004.

### Refereed Conference Proceedings

**Li-Chiou Chen** and Daniel Farkas. (2009). "Individual Risk Perception and Attitude towards Computer Security Risks" *Third International Conferences on Internet Technologies and Applications*, Wrexham, North Wales, UK, September 8-11, 2009.

**Li-Chiou Chen** and Daniel Farkas. (2009). "An Investigation of Decision-making and the Tradeoffs Involving Computer Security Risk," *Proceedings of the Fifteenth Americas Conference on Information Systems*, San Francisco, California, August 6-9, 2009.

Chienting Lin and **Li-Chiou Chen**. (2009). "Development of an Interdisciplinary Information Technology Auditing Program," *Proceedings of the 13th Colloquium for Information Systems Security Education*, Seattle, WA, June 1-3, 2009.

Lixin Tao and **Li-Chiou Chen**. (2008) "A Hands-On Overview Course for Computer Science and Modern Information Technologies", *Frontiers in Education*, Saratoga Springs, NY, October 22-25, 2008.

**Li-Chiou Chen** and Chienting Lin. (2007). "Combining Theory with Practice in Information Security Education," *Proceedings of the 11th Colloquium for Information Systems Security Education*, Boston, June 4-7, 2007.

Elizabeth Casman, Kathleen Carley, Boris Kaminsky, Neal Altman, and **Li-Chiou Chen** (2005), "Decentralizing Advanced Laboratory Diagnostics Could Reduce Anthrax Attack Mortality" *Society for Risk Analysis Annual Meeting*, December 4-7, 2005 Orlando, FL.

**Li-Chiou Chen**, Boris Kaminsky, Tiffany Tummino, Kathleen M. Carley, Elizabeth Casman, Douglas Fridsma, Alex Yahja (2004) "Aligning Simulation Models of Smallpox Outbreaks," *Proceedings of the Second Symposium on Intelligence and Security Informatics*, Tucson, AZ, June 10-11, 2004. Also in Springer-Verlag *Lecture Notes in Computer Science* as volume 3073.

Kathleen M. Carley, Douglas Fridsma, Elizabeth Casman, Neal Altman, **Li-Chiou Chen**, Boris Kaminsky, Démian Nave, and Alex Yahja (2004) "A Model of Biological Attacks on a Realistic Population," International Conference on Complex Systems, (ICCS2004) May 16-21, 2004, Boston, MA.

**Li-Chiou Chen**, Thomas A. Longstaff and Kathleen M. Carley (2004). "The Economic Incentives of Providing Network Security Defenses on the Internet Infrastructure," The proceedings of American Conference on Information Systems, August 5-8, New York, NY, 2004.

### **Book Chapter**

**Li-Chiou Chen**, Thomas A. Longstaff and Kathleen M. Carley. "The Provision of Defenses against Internet-based Attacks," in Readings and Cases in the Management of Information Security. Editors: Mike Whitman and Herb Mattord, Course Technology/Thomson Learning, March 2005.

### **Conference Abstracts**

**Li-Chiou Chen** (2005). "Identifying Malicious Web Requests through Changes in Locality and Temporal Sequence," DIMACS Workshop on Security of Web Services and E-Commerce, Piscataway, NJ, May 5-6, 2005.

**Li-Chiou Chen**, Kathleen M. Carley, Boris Kaminsky, Tiffany Tummino, Elizabeth Casman, Douglas Fridsma, Alex Yahja (2004). "Aligning Simulation Models of Biological Attacks." The Proceedings of the NAACSOS (North American Association for Computational Social and Organizational Science) Conference, *June 2004*, Pittsburgh.

**Li-Chiou Chen** and Kathleen M. Carley (2003). "The Impact of Network Topology on the Spread of Anti-Virus Countermeasures." The Proceedings of the NAACSOS (North American Association for Computational Social and Organizational Science) Conference, *June 2003*, Pittsburgh.

**Li-Chiou Chen** and Kathleen M. Carley (2002). "Identifying Critical Points of a Computer Network." The Proceedings of the Conference in Computational Social and Organizational Science, *June 2002*, Pittsburgh.

**Li-Chiou Chen** and Kathleen M. Carley (2001). "A Computational Model of Computer Virus Propagation." The Proceedings of the Conference in Computational Social and Organizational Science, *July 2001*, Pittsburgh.

### **Technical Reports**

Kathleen M. Carley, Douglas Fridsma, **Li-Chiou Chen**, Boris Kaminsky, Alex Yahja, Elizabeth Casman, Démian Nave, Neal Altman<sup>1</sup> (2004). "Estimating the Windows of Opportunity for Biological Attack Detection using BioWar," ISRI Technical Report, Carnegie Mellon University, 2004.

### **Workshops, Presentations and Poster Sections**

Daniel Farkas and **Li-Chiou Chen**. (2009). "Geographic Information Systems: A hands-on Introduction to GIS with a simple application in Wi-Fi Security" Tutorial in the Third International Conferences on Internet Technologies and Applications, Wrexham, North Wales, UK, September 8-11, 2009.

Daniel Farkas and **Li-Chiou Chen**. (2009). "A Hands-on Introduction to GIS with a Simple Application to Wi-Fi Security," Workshop in the Fifteenth Americas Conference on Information Systems, San Francisco, California, August 6-9, 2009.

**Li-Chiou Chen** and Chienting Lin (2008). Web Security Education Using Open-Source Tools, in Open Web Application Security Project (OWASP) 2008 AppSec Conference, New York, NY.

**Li-Chiou Chen** (2002). "Modeling Distributed Denial of Service Attacks and Defenses," Poster Session, Pennsylvania Infrastructure Technology Alliance Symposium, Harrisburg, PA, 2002.

### **Book**

Li-Chiou Chen. "Learning Windows NT Server 4," official Chinese translation, Gotop Information Inc., December 1997, Taipei, Taiwan.

### **Awards and Grants**

07/09-06/11 PI, National Science Foundation, CCLI-0837549  
Project title: Collaborative Project: Secure Web Development Teaching Modules  
Collaborated with XiangDong Li, City University of New York – City College  
Total award: \$149,900. Pace part (Lead Institution): \$99,956

08/09-07/10 Co-PI, Department of Defense, \$57,846  
Project title: Information Assurance Curriculum Development

01/10-12/10 PI, Verizon Foundation, Thinkfinity Grant, \$15,000  
Project title: Security@Web: Teaching Security with Alignment in Trust on the Web

07/09-06/10 Co-PI, Verizon Foundation, Thinkfinity Grant, \$15,000  
Project title: Development of Information Technology Auditing Teaching Modules

Spring 2009 Awardees, Pace Scholarly Research Award  
Project title: An Empirical Study on How Users Make Decisions involving Computer Security Risks

Spring 2008 Awardees, Pace Scholarly Research Award  
Project title: Evaluating Risk Factors in Online Banking Authentication

Summer 2006 Awardees, Pace Seidenberg School Summer Research Grant, \$2000  
Project title: Security Informatics in Finance

Spring 2005 Awardees, Pace Release-Time Award  
Project title: ADON: An Adaptive Tool for Early Detection of Anomalies in Temporal Network Data

2002-2004 Senior Researcher  
National Science Foundation, ITR-0218466, \$223,032 (PI: Kathleen Carley)  
Project title: Modeling Distributed Denial of Service Attacks

Spring 1999 & Spring 2000 Liang Ji-Dian Fellowship for Engineering and Science Students

### **TEACHING**

#### **Undergraduate Courses Taught**

- Overview of Computer Security
- Network and Internet Security
- System Analysis and Design
- Introduction to Computing and Computer Security

### **Graduate Courses Taught**

- Information Security Management
- Topics in Computer Security
- Business Telecommunications and Networking
- Telecommunications Management

### **Undergraduate Internship Paper Advised**

- Konrad Koenig "An Analysis of Corporate Access Control Policies," Spring 2008
- Rickard Walz "Software Data Recovery," Spring 2009

### **Doctoral Student Advised**

Alex Tsekhansky, Al Restrepo, Carlos Thomas.

### **Thesis Committee**

- MS, Kjetil, Computer Science, Pace University, 2005.
- Ph.D. Dissertation Committee, Qinghai Gao, "Secure Biometrics," City University of New York, 2007.

## **EXTERNAL SERVICES**

### **Memberships**

Association for Computing Machinery (ACM)  
Association for Information Systems (AIS)  
Institute of Electrical and Electronics Engineers (IEEE)  
Academy of Management (AIM)

### **Journal Reviews**

Management Science  
IEEE Security and Privacy  
IEEE Transactions on Systems, Man and Cybernetics  
Decision Support Systems  
European Journal of Operational Research

### **Conference Reviews**

Workshop on Link Analysis, Counterterrorism and Security, 2005  
American Conference on Information Systems, 2004 & 2008  
The Second Symposium on Intelligence and Security Informatics, 2004  
Colloquium for Information Systems Security Education, 2006-2009

### **Program Committee**

Workshop on Link Analysis, Counterterrorism and Security, Newport Beach, California, April, 2005

### **Session Chair**

American Conference on Information Systems, 2009

### **Media Interviews**

Westchester County Business Journal, November 14<sup>th</sup>, 2005  
AT&T Internet Security News Network, 2006

### **Information Assurance Curriculum Advisory Board**

State University of New York - Rockland Community College, 2007-current

## **INTERNAL SERVICES**

Member, Seidenberg School Information System Curriculum Committee, 2004-Current

- Develop new MSIS & BSIT Curriculum
- Course Development in Information Assurance Track

Co-Chair, Technology Sub-Committee, Seidenberg School Faculty Committee, 2008-Current

Member, Pace University Benefit Committee, 2008-Current

Faculty advisor, Department of Defense Information Assurance Scholarship Program (IASP), 2004-Current

- Successfully advised scholarship applicants Andrew Harris (IASP recipient 2005-2008) and Elaine Tatis (IASP recipient 2008-Current).