

# WEI-CHERNG LIAO

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- Education**
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| University of Southern California<br>Department of Electrical Engineering – Systems<br>PhD in Computer Engineering | Los Angeles, CA<br>Fall 2003 – Present<br>GPA: 4/4 |
| National Taiwan University<br>Department of Electrical Engineering<br>Master in Electrical Engineering             | Taipei, TAIWAN<br>Fall 1998 – Spring 2000          |
| National Taiwan University<br>Department of Electrical Engineering<br>Bachelor in Electrical Engineering           | Taipei, TAIWAN<br>Fall 1994 – Spring 1998          |
- Research Projects**
- |   |   |
|---|---|
| University of Southern California<br>Research Assistant with Prof. Konstantinos Psounis   | Los Angeles, CA<br>Spring 2005 – Present  |
| <ul style="list-style-type: none"><li>• Incentive algorithm design for P2P networks</li><li>• Performance evaluation for P2P networks</li></ul> |   |
| National Taiwan University<br>Research Assistant with Prof. Chorng-Kuang Wang   | Taipei, TAIWAN<br>Fall 1998 – Spring 2000 |
| <ul style="list-style-type: none"><li>• Baseband Receiver Design and Implementation for Communication System</li></ul>                          |   |
- Course Projects**
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| University of Southern California  | Los Angeles, CA<br>Fall 2003 – Present    |
| <ul style="list-style-type: none"><li>• Incentive Based Supernode Selection Boosts Skype Performance, CS 694 – Advanced Topics in Networking and Distributed Systems</li><li>• Motivating cooperation in P2P networks, EE 650 – Advanced Topics in Computer Networks</li><li>• Implementing FreeBits – A BitTorrent like P2P protocol, CS 551 – Computer Communication Networks</li><li>• Improvement in CCSDS File Delivery Protocol Using Duplicated Retransmission Mechanism, EE 550 – Design and Analysis of Data Networks</li><li>• Queueing model simulation, EE 465 – Probabilistic Methods in Computer Networks Modeling</li></ul> |   |
| National Taiwan University   | Taipei, TAIWAN<br>Fall 1998 – Spring 2000 |
| <ul style="list-style-type: none"><li>• 64 QAM demodulator design, Digital Communication Integrated Circuit Design</li><li>• A phase lock loop design, Design of Communication Integrated Circuit</li></ul>  |   |
- Awards**
- Research Assistantship in Fall 2005 and 2006
  - Ranked 1<sup>st</sup> in the PhD screening degree at USC in Fall 2004
  - Top 0.3% of students in National College Entrance Examination in 1994
- Publications**
- Wei-Cherng Liao, Fragiskos Papadopoulos, and Konstantinos Psounis, “A Peer-to-Peer Cooperation Enhancement Scheme and its Performance Analysis”, Journal of Communication, Vol. 1, Issue 7, November 2006
  - Wei-Cherng Liao, Fragiskos Papadopoulos, and Konstantinos Psounis, “An Efficient Algorithm for Resource Sharing in Peer-to-Peer Networks”, IFIP Networking 2006
  - Wei-Cherng Liao, “Design and Implementation of IF/Baseband Receiver for Bluetooth”, Master Thesis, National Taiwan University, June 2000

<b>Technical Skills</b>	C/C++, Matlab, NS-2, Perl, PHP, Hspice, Verilog, Synopsis, Cadence	
<b>Work Experience</b>	<p>Netlogic Microsystems <i>Intern</i> In charge of fast T-CAM lookup algorithm design and implementation.</p> <p>NTU-MTK Wireless Research Laboratory <i>Research Assistant</i> In charge of laboratory maintenance and involved in the Ultra WideBand (UWB) project, including system design and circuit implementation.</p> <p>R.O.C. Army <i>Second Lieutenant Computer Officer</i> I organized a team to build up the brigade's computer network and to maintain it. I was also in charge of development and maintenance of the Management Information System (MIS) of the brigade</p>	<p>Mountain View, CA June 2006 – Aug 2006</p> <p>TAIPEI, TAIWAN July 2002 – July 2003</p> <p>Taichung, TAIWAN July 2000 – March 2002</p>
<b>Teaching Experience</b>	<p>University of Southern California <i>Teaching Assistant</i> EE 484 "Communication System Design" EE 465 "Probabilistic Methods in Computer Systems Modeling" EE 555 "Broadband Network Architectures"</p>	<p>Los Angeles, CA Spring 2006 Fall 2006 Spring 2007</p>
<b>Graduate Course Work</b>	<p>University of Southern California Transform Theory, Probabilistic Methods in Computer Systems Modeling, Random Processes, Queueing Theory, Design and Analysis of Computer Communication Networks, Broadband Network Architectures, Advanced Topics in Computer Networks, Computer Communications, Algorithm Design, Advanced Topics in Networking and Distributed Systems, Stochastic Network Optimization</p> <p>National Taiwan University Statistical Communication Theory, Digital Transmission Theory, Linear Integrated Circuit Design, VLSI Design, Design of Communication Integrated Circuit, Analog Integrated Circuit Design, Digital Communication Integrated Circuit Design.</p>	<p>Los Angeles, CA</p> <p>Taipei, TAIWAN</p>