

Lu (Annie) Luo

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RESEARCH INTERESTS: Mobile and Ubiquitous Computing, Energy Awareness, Software Performance Engineering, Human Computer Interaction with a focus on Cognitive Modeling.

EDUCATION: **Carnegie Mellon University** Pittsburgh, PA, USA
School of Computer Science, Institute for Software Research
Ph.D. candidate

Harbin Institute of Technology Harbin, China
M.S. Computer Science and Engineering, July 1999
B.S. Computer Science and Engineering, July 1997

WORK EXPERIENCE: **Wearable Group, Carnegie Mellon University** May 2001 to present
Graduate Assistant

- Research on energy efficient design of mobile computing systems.
- C, C++, C#, Java, Windows CE, PalmOS, Embedded Linux, network programming, CGI, JavaScript.

IBM T. J. Watson Research Center, Hawthorne, NY Summers 2003 and 2004
Research Intern

- Research on energy-aware proxy architecture for wireless LANs.
- HTTP, HTML, multithreaded programming, Web server (Apache) and proxy, IEEE 802.11, Perl.

HP (Compaq) Western Research Lab, Palo Alto, CA Summer 2002
Research Intern

- Research on energy adaptive display system designs for future mobile environments.
- X Window programming under Linux, display technologies.

Inmedius, Inc. Pittsburgh, PA January 2002 to May 2002
Student Consultant

- Design electronic technical manual system for mobile workers.
- Develop customized mobile software solution based on J2EE.
- Observe and reflect on industrial software process for graduate research.
- Java programming, J2EE, EJB, XML.

Bell Laboratories, Lucent Technologies (China) July 1999 to July 2000
Member of Technical Staff -1

- Designed and developed Digital Access Cross-connect System software.
- Maintained legacy systems based on Modification Requirements.
- Designed and developed legacy-model transformation of DACS software.
- Trained on telecommunication essentials, dynamic cross-connect principles, SONET/SDH standards and applications, OOA/OOD using Rational ObjectTime.

Lab of Fault Tolerant Computing Technologies, HIT January 1996 to July 1999
Research Assistant

- Designed and developed an automatic requirement specification generator (B.S. thesis).
- Automatic software test data generator (M.S. thesis). (Both projects are a part of the LFTC's automatic software development research platform).
- Designed and developed the intra-machine device drivers for a dual-module fault tolerant computer system.
- C and C++, X86 Assembly, Device driver programming.

PUBLICATIONS:

Lu Luo and Daniel P. Siewiorek. **KLEM: A Method for Predicting User Interaction Time and System Energy Consumption during Application Design.** In Proceedings of the 11th International Symposium on Wearable Computers (ISWC 2007), Boston, MA, October 2007.

Lu Luo and Bonnie E. John. **Predicting Task Execution Time on Handheld Devices Using the Keystroke-Level Model.** In Proceedings of the International Conference on Human Factors in Computing System (CHI 2005), Portland, OR, April 2005.

Marcel C. Rosu, C. Michael Olsen, Chandrasekhar Narayanaswami, and Lu Luo. **PAWP: A Power Aware Web Proxy for Wireless LAN Clients.** In Proceedings of the 6th IEEE Workshop on Mobile Computing Systems & Applications (WMCSA 2004), UK, December 2004.

Marcel C. Rosu, C. Michael Olsen, Lu Luo, and Chandrasekhar Narayanaswami. **The Power-Aware Streaming Proxy Architecture.** In Proceedings of the First International Workshop on Broadband Wireless Multimedia: Algorithms, Architectures and Applications (BroadWim 2004), San Jose, CA, October 2004.

Asim Smailagic, Daniel Siewiorek, and Lu Luo. **A System Design and Rapid Prototyping of Wearable Computers Course.** In Proceedings of 2003 IEEE International Conference on Microelectronic Systems Education, 1-2 June 2003.

Subu Iyer, Lu Luo, Robert Mayo and Parthasarathy Ranganathan. **Energy-Adaptive Display System Designs for Future Mobile Environments.** In Proceedings of the First International Conference on Mobile Systems, Applications, and Services (MobiSys 2003), San Francisco, CA, May 2003. Also as technical report HPL-2003-91, Hewlett-Packard Labs, 2003.

Lu Luo, **Fault Manifestation Model for Predicting Anomalous System Behavior.** In Proceedings of the International Conference on Dependable Systems and Networks (DSN 2002) Student Forum, Bethesda, MD, June 2002.

Posters: Harvey Vrsalovic, Matthew Hornyak, Lu Luo, Daniel P. Siewiorek, and Asim Smailagic. **A Computer System for Accessing Ambient Display and Computing Resources in Wearable Environments.** To appear on the Tenth International Symposium on Wearable Computers (ISWC 2006), Montreux, Switzerland, October 2006.

C. Michael Olsen, Lu Luo, Marcel C. Rosu, and Chandrasekhar Narayanaswami. **HTTP Proxy for Low-Power Operation of Wireless Clients.** The Second International Conference on Mobile Systems, Applications, and Services (MobiSys 2004), Boston, MA, June 2004.

TEACHING: **Teaching Assistant**, CMU 15-213, Introduction to Computer Systems, Fall 2002
Give recitations and tutorials, Grading, Labs, Office hours on homework & exam questions.
Teaching Assistant, CMU 18-745, Rapid Prototyping of Computing Systems, Spring 2003
Give introductory lectures, Lead group discussions, Guide class projects.
Teaching Assistant, CMU 05-589, Women | Cars | GM, Spring 2004
Lead class discussions, Provide guidelines and suggestions on projects.

HONORS: **In USA:** 2002-2003 BM PhD Fellowship, 2001 Best Technical Graphics of ISWC'01 Student Contest.
In China: 1998 HIT Graduate Fellowship, 1998 HIT Bada Inc. Scholarship, 1997 HIT Most Outstanding Graduate, 1996 Neptune Foundation Scholarship, 1995 South Korea Foundation Scholarship, 1994-1999 HIT Most Outstanding Student, 1994-1997 HIT Undergraduate Fellowship.