

## Yih-Lun “Ron” Huang

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CONTACT INFORMATION	Keio-NUS CUTE Center National University of Singapore 21 Heng Mui Keng Terrace, #02-02-09 Singapore 119613	<i>Mobile:</i> (+65) 9046-6805 <i>E-mail:</i> ylhuang@nus.edu.sg <i>WWW:</i> ronhuang.org
EDUCATION	<b>National University of Singapore</b> , Singapore  <i>Ph.D., Electrical and Computer Engineering</i> (expected date: June 2013) <ul style="list-style-type: none"><li>• Adviser: Assist. Prof. Timothy Marsh</li><li>• Area of Study: Human-Computer Interaction</li></ul> <b>University of Southern California</b> , Los Angeles, California USA  <i>M.S., Computer Science</i> December 2004 <ul style="list-style-type: none"><li>• Adviser: Prof. Cyrus Shahabi</li><li>• Area of Study: Human-Computer Interaction</li></ul> <b>National Taiwan University</b> , Taipei, Taiwan  <i>B.S., Electrical Engineering</i> June 2002 <ul style="list-style-type: none"><li>• Computer Science specialization</li></ul>	
AWARDS	<b>National University of Singapore</b> <ul style="list-style-type: none"><li>• NUS Research Scholarship, 2009–2013</li></ul> <b>Google Desktop Gadget Contest</b> <ul style="list-style-type: none"><li>• Honorable Mention, 2006</li></ul> <b>IEEE Computer Society International Design Competition (CSIDC) 2003</b> <ul style="list-style-type: none"><li>• 1<sup>st</sup> Place, 2003</li></ul> <b>IEEE Computer Society International Design Competition (CSIDC) 2001</b> <ul style="list-style-type: none"><li>• 5<sup>th</sup> Place, 2001</li></ul>	
RESEARCH INTERESTS	Human-computer interaction, end-user programming, software engineering, serious games	
RESEARCH EXPERIENCE	<b>Graduate Class Projects</b> <ul style="list-style-type: none"><li>• Investigation of patterns of user experience for software programmers. The patterns are a collection of the best practices within the user experience design domain. But instead of targeting their normal audiences, the interaction designers, these patterns are transcribed in language familiar to software programmers.</li><li>• Designed a new human interface device, <i>Look Mom! No Touchpad</i>, which is capable of performing tasks similar to multi-touch touchpad. However, while normal touchpad can only be operated at fixed location, this device works on any surface. It is as if there is a virtual touchpad following underneath the user's hand.</li><li>• Explored the correlation between user experience and data (mouse movements, keystrokes, position of the user's character, etc.) collected within games.</li><li>• Improved recognition accuracy of an user-independent hand gesture-based human interface device.</li></ul>	

#### Undergraduate Work

- Designed system to broadcast multimedia contents onto Bluetooth-enabled devices.
- Utilized XML as the storage backend for websites.

#### External Reviewer

- Reviewer for IEEE CSIDC 2002 submission proposal.

#### PUBLICATIONS

Huang, Y.-L., Marsh, T. and Cheok, A. D. Investigation of Software Patterns of User Experience. In *ACE '10: Proceedings of the International Conference on Advances in Computer Entertainment Technology*, 2010

Marsh, T., Wong, W.L., Carriazo, E., Nocera, L., Yang, K., Varma, A., Yoon, H., Huang, Y.L., Kyriakakis, C. and Shahabi, C. User experiences and lessons learned from developing and implementing an immersive game for the science classroom. In *Proceedings of the 11<sup>th</sup> International Conference on Human-Computer Interaction*, 2005.

#### ACADEMIC EXPERIENCE

##### Teaching Assistant

*Lab instructor for 902 39110: Computer System Laboratory* Spring 2003

- Sample student evaluations available upon request.
- Responsible for lecture and supervision of laboratory where senior undergraduate students design and implement embedded system based on Intel 8051 microcontroller.
- Developed supplementary course material, including a course web page.

*Lab instructor for 902 39120: Computer Network Laboratory* Spring 2003

- Sample student evaluations available upon request.
- Designed the course syllabus and experiments, as this was a brand new laboratory.
- Responsible for lecture and supervision of laboratory where senior undergraduate students learn about wireless network, mobile IP and network simulation tool.
- Developed supplementary course material, including a course web page.

*Lab instructor for 902 37300: Digital Circuit Laboratory* Fall 2002

- Sample student evaluations available upon request.
- Responsible for lecture and supervision of laboratory where senior undergraduate students design and implement digital circuitry using FPGA.
- Developed supplementary course material, including a course web page.

*Grader for 902 21400: Digital Electronics* Spring 2003

*Grader for 902 36500: Digital System Design* Fall 2002

#### PROFESSIONAL EXPERIENCE

##### **Sunplus mMedia Inc.**, Taipei, Taiwan

*Advanced Software Engineer* December 2007 to June 2009

- Designed and built a complete software development kit focused on digital photo frame.

##### **Compal Communications Inc.**, Taipei, Taiwan

*Software Engineer* February 2005 to December 2007

- Ported various in-house and commercial (BREW) GUI frameworks to GSM and CDMA2000 platforms.
- Designed an object-oriented C-based GUI framework and the associated code generator.
- Optimized display performance for GUI framework.

**Computer Center, National Taiwan University, Taipei, Taiwan**

*Part-time Programmer*

August 2000 to June 2002

- Constructed an online solution for the university health center to collect and analyze the health records.
- Maintained university homepage.

MEMBERSHIPS      **Association for Computing Machinery (ACM)**

- *Member*, since 2003

**Institute of Information & Computing Machinery (IICM)**

- *Member*, since 2002

TECHNICAL SKILLS      Programming: Lua, C, Java, Python, SQL, JavaScript, C++, PHP, UNIX shell scripting, GNU make, Lisp, DVCS (git), VCS (SVN, PVCS VM), and others

Information Technology: Networking (UDP, TCP, ARP, DNS, Dynamic routing), Service (nginx, Apache, FastCGI, SSH, SQL, POP3, IMAP, SMTP, CouchDB, application-specific daemon design)

Computer Applications: Emacs, T<sub>E</sub>X (L<sup>A</sup>T<sub>E</sub>X, B<sub>I</sub>B<sub>T</sub>E<sub>X</sub>), most common productivity packages

Operating Systems: Linux, Apple Mac OS X, Android, Apple iOS, Microsoft Windows family, BSD

Embedded Systems: Software and hardware development with several MCU and DSP platforms (e.g., Motorola MCU's, Texas Instruments MCU's, Sunplus mMedia MCU's, and others)

EXTRACURRICULAR      **German Culture Club, National Taiwan University**

*Archives manager*

September 1999 to January 2000

- Responsible for storing and maintaining the documentations generated during the activities.

MISCELLANEOUS      Citizenship: Taiwan

Language: Chinese (Mandarin), English, Taiwanese

REFERENCES      Available upon request

Last updated: October 25, 2010