

# Sung Pil Moon

# Curriculum Vitae

Department of Human-Computer Interaction  
School of Informatics  
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## RESEARCH INTEREST

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My research lies in Human-Computer Interaction (HCI), with primary interests in human behavior understanding (e.g., motivation and decision-making), and interactive system design in conjunction with information visualization, usability and user experience. In particular, my current research focuses on creating useful and effective information visualization tools (both web and mobile)

- To provide sustainable motivation to run more and more frequently in a context of running, so that users of the tool would be able to change their behaviors
- To help aware of local trends by showing meaningful and analytical visualized information extracted from social data (e.g., Twitter, and Facebook)
- To provide decision-ready visualized options for decision makers for more accurate and confident decision by reducing their cognitive burden in dynamic and uncertain situations.

## EDUCATION

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### **Ph.D. in Human-Computer Interaction**

School of Informatics, Indiana University, Indianapolis, IN

Graduation  
Expected in  
Aug. 2013

- Dissertation title (Tentative): HamkeRun: Mobile Information visualization tool for sustainable motivation in a context of running
- Committee Members: Mark S. Pfaff (Chair), Davide Bolchini, Amy Liu, & Kevin Rand.

### **Master of Information Technology in eBusiness**

School of Computer Science, Carnegie Mellon University, Pittsburgh, PA

Aug. 2006

### **Bachelor of Science in Computer Engineering**

Soongsil University, Seoul, Korea Republic

Feb. 2004

## RESEARCH & PROFESSIONAL EXPERIENCE

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### Graduate Research Assistant, Indiana University, Indianapolis

- Crystal project Sep. 2012 –  
Current
  - Develop a decision-making tool to enable decision-makers to attain deeper levels of option awareness and choose a robust option via visualizations of the decision space.
  - Funded by MITRE research Corporation ([www.mitre.org](http://www.mitre.org))
  - Take a role for UI, front-end side development and usability
  
- GRAPPA Decision Space information development project Sep. 2008 –  
Mar. 2011
  - Developed a decision space information visualization tool which is a model-based simulator to aid first emergency responder providing visualization of multiple decision options for more accurate and confident decisions.
  - Funded by MITRE research Corporation ([www.mitre.org](http://www.mitre.org))
  - Project number: 43MSR001-EA, 45MSR026-FA
  - Took a role for UI, front-end side development and usability
  
- Top Health Trends project Nov.2011 -  
June 2012
  - Developed an information visualization tool showing local health-related Twitter trends to aid daily jobs of health-related experts.
  - Collaborated with MESH coalition ([www.meshcoalition.org](http://www.meshcoalition.org))
  - Took a main role in developing UI, front-end side, collecting requirements, and conducting usability tests
  
- ANRORA (Aural Navigation Flow On Rich website Architecture) project Sep.2012 –  
Jan. 2013
  - A NSF-funded project investigating linkless navigation strategy as a new way to increase mobile user experience while on-the-move.
  - Developed an interactive mobile prototype (both in high fidelity and android version) and conducted usability tests.
  
- MARVAND project Nov.2012-  
Feb.2013
  - Developed a mobile application supporting disaster relief activities for onsite volunteers after natural disaster.
  - Took a main role in developing UI, front-end side, collecting user / system requirements, and conducting usability tests

### Teaching Assistant, Carnegie Mellon University, Pittsburgh

- Robot to the Rescue (RttR) class, Institute for Software Research (ISR) Nov.2006 –  
May 2008
  - Led a course and offered a guidance of general introduction of robotics, and developed a simulator with C#-based Microsoft Robotics Studio framework to communicate between mechanical devices and simulation services

**Web developer, Webtown Company, Cheju City, Korea**

July 1997 –

- Worked as a developer for e-business solutions, and as a web designer
- Developed Java-based web application framework and testing tool

Aug. 1998

## **PUBLICATIONS AND POSTERS**

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### **Publications**

Moon, S. P., Liu, Y., Entezari, S., Pirzadeh, A., Pappas, A., & Pfaff, S. M. (accepted, to be published in May, 2013). Top Health Trends: An information visualization tool for awareness of local health trends. *10th International Conference on Information Systems for Crisis Response and Management (ISCRAM'13)*. Baden-Baden, Germany, May 12-15.

Moon, S. P., Liu, T., Powit, R., Kim, B.M., & Pfaff, S. M. (submitted on February 15, 2013). MARVAND: Mobile application for relief volunteering activity after natural disaster. *15<sup>th</sup> International Conference on Human-Computer Interaction with Mobile Devices and Services, MobileHCI, 2013*. Munich, Germany.

Pfaff, M. S., Klein, G. L., Drury, J. L., Moon, S. P., Liu, Y., & Entezari, S. O. (2012). Supporting complex decision making through option awareness. *Journal of Cognitive Engineering and Decision Making*, Advance online publication. doi: 10.1177/1555343412455799

Liu, Y., Moon, S. P., Pfaff, M. S., Drury, J. L., & Klein, G. L. (2011). Collaborative option awareness for emergency response decision making. Paper presented at the 8th Annual International Conference on Information Systems for Crisis Response and Management (ISCRAM), Lisbon, Portugal, May 2011.

Pfaff, M. S., Drury, J. L., Klein, G. L., More, L. D., Moon, S. P., & Liu, Y. (2010). Weighing decisions: Aiding emergency response decision making via option awareness. *Proceedings of the 2010 IEEE International Conference on Technologies for Homeland Security (HST)*, 251-257.

### **Posters**

Bolchini, D., Rohani Ghahari, R., George-Palilonis, J., Moon, S.P., Archibald, C., & Kaser, L. (2012, November). Eyes-free web browsing with linkless navigation. IUPUI Innovation to Enterprise Showcase & Forum, IUPUI Campus Center, Indianapolis (IN), November 28, 2012.

Pfaff, M.S., Liu, Y., Moon, S. P., Entezari, S. O (2012, May). Effects of human-computer trust on collaborative decision making in a simulated emergency response. Poster presented at the 24th Annual Convention of the Association for Psychological Science, Chicago, IL.

Pfaff, M.S., Moon, S. P., & Liu, Y. (2010, April). The GRaPPa lab: Supporting team decision making in complex environments. Poster presented at the IUPUI Research Day, Indianapolis, IN.

Luther, J., Moon, S. P., Davide, D., & Faiola, A. (2009, November). Advancing paper-in-screen prototyping: Evaluating and interacting with digital sketched designs. Presented at 2009 Indiana World Usability Day, Indianapolis, IN.

## HONORS AND AWARDS

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<b>Graduate Research Assistantship, Indiana University, Indianapolis</b>	2008 - Current
<b>Scholarship for Talented Alumni Student from Soongsil University, Seoul, Korea</b>	2012 – 2013
<b>Scholarship for Talented Student, Ministry of Commerce, Industry and Energy of Korea</b>	2005 – 2006

## HCI AND TECHNICAL SKILLS

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### Design Methods

User-centered design, participatory design, ideation, affinity diagramming, scenarios, personas, information architecture, experience prototyping, technology probes

### User Research

Ethnography, contextual inquiry, focus group, experience sampling method, usability testing, heuristic analysis, GOMS, cognitive walkthrough, wizard of OZ, survey design & data analysis

### Prototyping

Sketching, low/mid/high fidelity prototyping, paper prototyping, experience prototyping, Flash, Photoshop, Balsamiq, Fluid UI

### Development

Java (SCJP; Sun Certified Java Programmer), Javascript, HTML5, CSS, XML, jQuery Mobile, C#, C/C++, Adobe Flex web / mobile programming, Actionscript, Map SDKs (GoogleMap, MapQuest, ESRIMap), MySQL, Kinvey (BaaS)

## PATENT

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### System and Method for Producing Video Map

Attorney Docket Number N&N-114US, Application Number: 12258709