

Jie-Eun Hwang

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Education

Harvard University, Graduate School of Design, Cambridge, MA Nov 2007
Doctor of Design

[Thesis] "Heuristic Noll Map: A Machine Learning Approach for Interpreting Urban Morphology."

Conducted research addressing an innovative knowledge sharing method by representing urban morphology. Examined diverse perceptions of an urban setting by various actors in urban design practice and explored the meaning of built form.

Yonsei University, Seoul, Korea Aug 2002

Master of Science in Housing and Interior Design

[Thesis] "SpaceScope: Developing a Spatial Information Retrieval System in Architecture."

Proposed an RDF schema composed of spatial elements and relationships in a floor plan.

Yonsei University, Seoul, Korea

Bachelor of Engineering in Architectural Engineering

Feb 1997

Bachelor of Science in Housing and Interior Design

Feb 1995

Work & Research

Experience information technology

Northeastern University, School of Architecture, Boston, MA Jan 2008 - Present

Research Associate

[The Urban Ring Initiatives] Conducting a research project for developing an innovative urban design tool that enables various professionals and communities to communicate with three dimensional urban representations.

The MIT Media Lab, Cambridge, MA

Sep 2005 - May 2006

Interaction Designer / Project Participant

[The Electronic Lens] Designed mobile interface and compiled GIS data for the project, which aimed to explore and create new paradigms of civic ubiquitous networking with mobile technologies. Sponsored by Motorola, Government of Catalonia, Spain.

Center for Design Informatics, GSD, Cambridge, MA

Jan 2004 - May 2004

Research Associate

[Developing a Geo-data Model in Architecture] Coordinated the project that investigated the feasibility of embedding architectural information in Geographic Information System (GIS). Collaborated with Harvard Planning Office.

Korea Institute of Science & Technology, Seoul, Korea

Sep 2002 - Mar 2003

Research Scientist

[4D Virtual Heritage Chronicles] Developed Web 3D navigation interface to reach diverse resources of Cyber Museum using OODB (Exelon) and GeoVRML. Patented in Korea. Funded by Korean Ministry of Information and Communication.

Virtual Reality Research Center, KAIST, Daejeon, Korea

Oct 2000 - Feb 2002

Research Assistant

[KotaView] Developed a semantic data model for wooden eave structure and components based on the structural mechanics. Powered by Web 3D engine EON. Funded by Korea Science and Engineering Foundation.

The Archmedia Lab, Yonsei University, Seoul, Korea

Jul 2000 - Aug 2002

Research Assistant

[BuildingWiz] Developed an ontology of Building LOD in 3D GIS. Participated in implementation in C++.

[Vitruvius] Participated in implementation in C++ for a structured floor plan generation engine.

architectural design

Harvard Design School, Cambridge, MA

Sep 2003 - Jan 2008

Teaching Fellow / Assistant

Group-3 Architects & Associates Inc., Seoul, Korea

Jan 1997 - Jan 2000

Junior Architect / Building Engineer

Computer Skills

Geographic Information System: ArcGIS, CommunityViz, KML, GML, CityGML

CAD / Graphics: FormZ, SketchUp, Maya/MEL, 3D Studio Max, Photoshop, Illustrator, AutoCAD

Web: HTML/CSS, JavaScript, JSP, XML, AJAX, Flash/ActionScript

Language: C++, Java, Scheme, Visual Basic

Learning from Main Streets: A Machine Learning Approach Identifying Neighborhood Commercial Districts

Jean Oh, Jie-Eun Hwang, Stephen F. Smith, Kimberle Koile

International Conference on Design & Decision Support Systems in Architecture and Urban Planning, pp. 325-340, Eindhoven University of Technology, The Netherlands, Jun 2006.

HEURISTIC NOLLI MAP: A Preliminary Study in Representing the Public Domain in Urban Space

Jie-Eun Hwang, Kimberle Koile

Conference of Computers in Urban Planning and Urban Management, University College of London, UK, Jul 2005.

Urban Ontology for the Lexicon of Streetscape

Jie-Eun Hwang

[Poster] *International Conference of Computer Aided Architectural Design FUTURES*, Vienna, Austria, Jun 2005.

KotaView: Simulating Traditional Korean Architecture Interactively and Intelligently on the Web

Jin-Won Choi, Jie-Eun Hwang

Automation in Construction, Vol. 14, Issue 1, pp.1-14, Jan 2005.

Digital Methodology in Design Pedagogy at Harvard Design School

Jie-Eun Hwang

Architecture Magazine of Architectural Institute of Korea, p 39-42, Nov 2004. (in Korean)

4D Virtual Heritage Chronicles: Exploring Spatiotemporal Context of Virtual Heritages

Jie-Eun Hwang, Yong-Moo Kwon

[Poster] *International Conference of Computer Aided Architectural Design FUTURES*, Tainan, Taiwan, Oct 2003.

SpaceScope: Spatial Content-based Retrieval of Architectural Floor Plans

Jie-Eun Hwang, Jin-Won Choi

International Conference of Computer Aided Architectural Design FUTURES, pp. 53-62, Tainan, Taiwan, Oct 2003.

Managing and Retrieving Spatial Information in Architectural Floor Plan Databases

Jie-Eun Hwang, Jin-Won Choi

Journal of Asian Architecture and Building Engineering, Vol. 2, No. 1 pp.123-129, May 2003.

Toward the Synchronized Experiences between Real and Virtual Museum

Yong-Moo Kwon, Jie-Eun Hwang, et al.

Proceedings of Asia-Pacific Advanced Network, Fukuoka, Japan, Mar 2003.

SpaceCore: Metadata for Retrieving Spatial Information in Architecture

Jie-Eun Hwang, Jin-Won Choi

Conference of Association for Computer Aided Design in Architecture, pp. 197-215, Pomona, US, Oct 2002.

A Study on a VR-based Modeler for an Architectural Decision-Making System

Jie Eun Hwang, Ji Hyun Kim, Jin Won Choi

Conference of Human Computer Interaction, PyungChang, Korea, Feb 2002. (in Korean)

A Computational Method To Promote Architectural Design With Traditional Identities

Jin-Won Choi, Jie-Eun Hwang, Hyun-Soo Lee

The Journal of Asia Interior Design Institutions Association, Vol. 1, Issue 1, pp.108-122, Apr 2001.

Reference

Prof. Spiro Pollalis: pollalis@gsd.harvard.edu
Professor of Design Technology and Management at Harvard Graduate School of Design.
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Prof. Kostas Terzidis: kostas@gsd.harvard.edu
Associate Professor at the Harvard Graduate School of Design.
48 Quincy Street Cambridge, MA 02138, (617) 496-4071

Dr. Kimberle Koile: kkoile@csail.mit.edu
Research Scientist at Computer Science Artificial Intelligence Lab at MIT.
32 Vassar Street, rm.32-221, Cambridge, MA 02139, (617) 253-6037