1227 Richmond Street Pittsburgh, PA 15218 ranttila@cmu.edu 847.254.2545

education

Carnegie Mellon University [Pittsburgh, Pennsylvania]

Ph.D. in Building Performance and Diagnostics, School of Architecture | December 2017 (expected)

Dissertation: "Safe and Healthy Schools – Synergistic Design Actions in Improving School Buildings for the Whole Child."

Carnegie Mellon University [Pittsburgh, Pennsylvania]

Master of Science in Sustainable Design, School of Architecture | August 2013

Thesis: "Moving Away from a Bunker Mentality: Shifting target hardening dollars to school qualities that really matter to student health and safety."

Illinois Institute of Technology [Chicago, Illinois & Paris, France]

Bachelor of Architecture with Honors, College of Architecture | December 2006

registrations / accreditations

Registered Architect, State of Illinois | October 2015

NCARB Certificate | October 2015

LEED Accredited Professional Building Design + Construction | June 2007

Abu Dhabi Urban Planning Council, Estidama, Pearl Qualified Professional | May 2011

experience

Carnegie Mellon University [Pittsburgh, Pennsylvania]

Instructor | January 2015 - Present

- Studio Instructor for first year undergraduate architectural students
- Responsible for desk critiques, section lectures, and leading discussions three days a week

Carnegie Mellon University [Pittsburgh, Pennsylvania]

Research Assistant | January 2013 - December 2014

- Evaluated audit reports and helped design and populate a database for analysis of energy consumption data from Pennsylvania Housing Finance Agency multi-family residential weatherization and energy efficiency upgrade project
- Completed Revit model and drawings for the design and engineering of the Teaching Operational Performance Laboratory at the Energy Innovation Center

GHAFARI Associates, LLC [Chicago, Illinois]

Architect II | November 2008 - June 2012

- Pearl Qualified Professional for a 100,000 SF Bus Gate Building at the Abu Dhabi Airport, working on-site with airport officials through project milestones
- Completed Estidama coordination and documentation for Abu Dhabi Airport Bus Gate Building, achieving a Two Pearl design certification
- Sustainability coordinator and member of design team for a 500,000 pre-manufactured housing unit project proposal in Saudi Arabia
- Completed LEED feasibility studies and environmental analysis for a variety of projects
- Performed existing construction analysis, using laser-scanning technologies in tandem with record drawings to create an as-built building information model of a historic landmark site for construction documents
- Completed design documents and sustainability coordination for new United Cargo building at O'Hare International Airport

Illinois Institute of Technology [Chicago, Illinois]

Assistant to Adjunct Faculty | January 2007 - May 2009

- Paired with Instructor Sander Kaplan to team teach in the second year undergraduate program; curriculum included intensive study in masonry and timber construction methods
- · Responsible for desk critiques, section lectures, and leading discussions one studio day a week

• Performed one hour-long lecture to full studio each semester; lectures have included topics in masonry, roofing systems, timber structural calculations, and the LEED rating system

SKJN Architekten Corporation [Riverside, Illinois]

Junior Architect | June 2006 - October 2008

- Created design drawings and construction documents
- Performed site and zoning studies for developers
- Consulted clients and developers during design development and construction administration phases
- Performed existing construction analysis, including building measurement, verification and documentation

Arthur S. Takeuchi Materials Library at IIT [Chicago, Illinois]

Coordinator | Winter 2008 - Summer 2008

- Created design documents for library space
- Assisted in material acquisition for reference materials
- Implemented cataloging system for materials to be organized for storage and circulation

software/languages

Revit (v8.0 - 2016), Autocad, Design Builder, Green Building Studio, Adobe Suite, Microsoft Office, Ecotect, Processing

conferences / exhibitions / lectures

Conferences

 AASHE 2015 Conference and Expo: Transforming Sustainability in Education – "Bridging the Gap: Building High Performing K-12 Schools That Ready Students for Sustainability in Higher Education" presented with Dr. Erica Cochran | October 2015

Exhibits

- Museum of Science and Industry, Smart Home Exhibit member of team responsible for design and construction of site bench seating, Summer - Winter 2008
- IIT College of Architecture Open House, 2001-2006
- Lost and Found Productions built model of Mies van der Rohe's Farnsworth House for the play "The Glass House" performed at The Art Institute of Chicago, Arts Club of Chicago, and Farnsworth House, Spring 2003

Lectures

- "Safe and Healthy Schools", Case Studies in Architecture and Cities, CMU School of Architecture, September 2016
- "Introduction to LEED and Green Rating Systems", Intro to the Profession, IIT College of Architecture |
 September 2010 & 2011

committees / contributions

Committees

Carnegie Mellon Design Review Committee (2016), Carnegie Mellon University Architect Selection Committee – ANSYS Building (2016), CMU Graduate Student Assembly – School of Architecture Representative (2015-2016), CMU School of Architecture Graduate Exchange Lecture Committee (2016)

Contributor

- O'Hare Modernization Program Sustainable Airport Manual v2.1 (November 2011) current version
- Moving Design. Call to Action: An Intervention on Bike Safety | Summer 2011

awards / honors

Scholarships

Akram Midani Graduate Fellowship Fund (2013), IIT Leadership Academy Scholarship (2004-2006), AIA/ NEI Scholarship (2005), Elizabeth Spies Droste Travel Scholarship (2005), IIT Heald Scholarship (2001-2004)

Competitions

- IIT Urban Green Design Build Studio Design of single family affordable green home selected for studio design development and construction | Spring 2006
- International Masonry Institute Masonry Camp Attendee, selected from 2nd Year Studio by IMI representatives based on masonry knowledge and studio work | Summer 2003

Jury Member

- 19th Biennial AIA Eastern Illinois Chapter Distinguished Building Awards | 2016
- CMU Comprehensive Studio, "The STEAMbox Studio" | Spring 2015
- IIT Graduate Program Three Second Year Studio | Spring 2011
- IIT Undergraduate First Year Studio, House Project | Spring 2011