

RESEARCH INTEREST

Ambitious, intrinsically motivated professional with a background in architecture, engineering, and programming seeking to research interface between technology and construction industry

EDUCATION

University of Texas at Austin

Bachelor of Architecture

May 2016

Bachelor of Science in Architectural Engineering

May 2016

- GPA: 3.56/4.00
- Graduate, Dual Degree Honors Program
- Recipient, Charles C. and Lula May Wilson Endowed Scholarship \$24,000

RESEARCH/PROJECTS

NexSmart for Solar Decathlon 2015

Aug. 2014–Sep. 2015

Team Lead

Austin, TX

- Created a small team of students to develop NexSmart, a functioning custom smart home automation system for an award-winning solar home that was featured in Silicon Labs' IoT Hero series
- Crafted and implemented innovative vision for how an American homeowner might digitally interact with their home and learn how to save energy through real-time lifestyle adjustments
- Collaborated with electrical and mechanical engineering students to develop back-end infrastructure based on a Bluetooth Low Energy (BLE) module and sensors
- Worked with design students and programmers to develop a browser-based user interface (UI); developed wireframes and mockups to convey vision to team
- Guided team by reinforcing goals to both technical and design teams to arrive at a cohesive end product
- Collected and analyzed data using surveys to determine user preference for interactions with their homes and researched available "smart" systems on market
- Exercised leadership and cooperative team building skills

Urban Plague

Jan. 2015–May. 2015

Author

Austin, TX

- Utilized knowledge of architecture, engineering, and programming to design low-cost mechanical and passive solutions for Brazilian "favelas," or informal housing, for impoverished residents by realizing an energy simulation program contained the equations and programming needed to calculate indoor conditions of a given building
- Participated in a week-long exchange program with University of São Paulo and traveled abroad to experience conditions of the favelas firsthand in order to understand needs of users
- Authored undergraduate research paper and presented findings to a board of reviewers composed of industry professionals, professors, and colleagues

Testing Validation of Energy Simulation Programs (Ongoing)

Nov. 2017–Current

Co-author

Dallas, TX

- Co-authoring paper discussing industry-wide lack of physical validation of modeled inputs into building energy simulation programs for a prominent client in technology industry
- Researching embedded risks in relying on an energy simulation program to calculate mechanical heating and cooling loads for a simulated building
- Designing strategy for appropriate instrumentation and tools to measure physical qualities of buildings and comparing results to approximated inputs into building energy simulation programs
- Performing energy analysis of a research facility under construction and comparing to actual energy performance of building after construction

PROFESSIONAL EXPERIENCE

Wiss, Janney, Elstner Associates, Inc.

Jul. 2016–Present

Associate II

Dallas, TX

- Provided architectural consulting services for architects, engineers, and contractors
- Designed building enclosure details to ensure air, moisture, and thermal barriers were continuous using foundations of building science
- Observed ongoing new construction at a large hospital to provide building enclosure commissioning services, headed weekly meetings for enclosure related issues on the project, performed submittal review
- Performed enclosure peer review for design and construction documents for architects
- Investigated façade issues on existing buildings; performed façade assessment
- Introduced energy modeling capabilities into the company within the first year of joining out of intrinsic motivation and academic interest, which will expand company's scope of services
- Engaged in professional community and actively assisting with knowledge sharing (such as designing/creating a website which contains tools for various members of the industry)
- Gained extensive CAD experience; drafted construction details for construction drawings
- Developed effective ways to convey information using 3D models rather than traditional 2D drawings

Linbeck

May 2015–Aug. 2015

Intern

Houston, TX

- Utilized innovative construction management software to perform quality control as a field engineer and communicate digitally documented issues to construction trades
- Performed QA/QC for construction of a new middle school

Sevan Multi-Site Solutions

Jul. 2014–Dec 2014

Head Surveyor

Dallas, TX

- Digitally documented existing conditions of banks for J.P. Morgan and drafted building plans using AutoCAD

Mooyoung Architects & Engineers

July 2012–Aug. 2012

Intern

Seoul, South Korea

- Aided in large scale project management for a residential development in Abu Dhabi
- Assisted lead architect in designing master plan for a university campus in Korea

PERSONAL PROJECTS/INTERESTS

Mobile App for Architects, Engineers, and Contractors (Ongoing)

Nov. 2017–Current

Dallas, TX

- Developing mobile application for Android OS to display construction documents and to link observed concerns, questions, or issues with photographs taken on the construction job site
- Gaining experience in user experience design and mobile app development using Android Studio

Texas E-Sports Association

Jul. 2012–May 2013

Head of In-House Production

Austin, TX

- Designed structure and managed construction of the sets and stages for a professional videogame tournament streamed to 91,000 concurrent viewers out of passion for videogames
- Managed a team of 6 volunteers to build three stage sets over the course of two years
- Stage sets were designed to visibly reflect what was occurring within the match using dynamic colors

SKILLS

AutoCAD
Revit
SketchUp
Rhinceros

Java (Basic)
Adobe Suite
Mathcad
Microsoft Office

Architectural Design
UX Design
Engineering
Visual Communication

Graphic Design
Energy Simulation
Team Collaboration
Building Science