# Mona Hashemi

Computational Designer and Researcher

### Experience

#### Design Computational Leader at NBBJ (2021-present)

- Developing computational workflows and customized tools to address complex design challenges and meet client requests.
- Serving as the AI champion, developing educational content, conducting research, and creatin custom tools to advance the use of AI in design processes
- Assisting with BIM (Building Information Modeling) processes, including model and data management and developing BIM strategies to ensure accuracy and efficiency in project execution
- Conducting performance analysis to enhance functionality and efficiency, leading to more intuitive and effective design solutions
- Contributing to research and educational initiatives and providing the studio with new software platforms and technologies and integrating them into projects
- Contributing to design development and construction documents of life science projects

#### Research Assistant at Kent State University; (2019-2021)

- Conducting extensive research focused on robotic design and human-robot interaction in RAD Lab
- Developing interactive physical and digital design interfaces, enhancing user experiences and product functionality
- Developing UI/UX designs using Augmented Reality, digital and physical prototyping, and 3D printing techniques resulting in user-centered designs
- Enhancing robotic interaction through remotely programming and controlling robotic motions
- Instructor at ACADIA Workshop 2020, ART: Augmented Robotic Telepresence

#### Adjunct Instructor at Kent State University; (Winter 2021)

- Leading the second-year interior design students for the course "Interior Design Studio, Detailing & Fabrication"
- Preparing lectures and presentations on the relationship of people with objects and space
- Helping student with exploring the new typology of commerce and gathering
- Conducting weekly studio critiques to review students' inquiries and design progress, while evaluating projects and assignments

#### Instructor at Upward Bound Program, Kent State University; (Summer 2020)

• Teaching the basic concepts, methods, and skills of architecture and 2D and 3D modeling software to post-secondary students.

#### Assistant Architect at RMJM-Arta Tehran, Iran; (2017-2018)

• Contributing to the concept and design development, construction documents, presentation, and physical & digital modeling of museums.

### Skills

- Knowledge of computational design methodologies including generative design solutions and simulation workflows
- Strong knowledge of programming languages such as Grasshopper (visual Programming), Python
- Comprehensive knowledge of 2D graphics and proficient with AutoCAD, Adobe Suites, and Figma
- Familiarity with developing data-driven design solutions
- Advanced knowledge of 3D modeling software such as Rhinoceros, Revit, and Maya 3D
- Experience with game development software such as Unreal Engine and Unity
- Basic knowledge of web development, HTML and CSS
- Thorough understanding of leadership, efficient group work, and communication

### Education

- **M.Sc.** in Architecture & Environmental Design Robotics, Kent State University, (2019-2021)
- **M.Sc.** in Architectural Technology-Computational Design, University of Tehran, (2016-2019)
- **B.Arch.** in Architectural Engineering, University of Tehran, (2011-2016)

## **Publications**

- Poustinchi M.E, Hashemi M, Krivanek C, "Physical Interface for Robotic Marionette Camera (RMC): Hardware Controlling Platform for Robotic Videography Motion Design", (SIGraDi 2020)
- Hashemi M, "Human-Robot Collaborative Design (HRCoD): Real-Time Collaborative Cyber-Physical HMI platform for Robotic Design and Assembly through Augmented Reality", Kent State University. (Master Thesis) – (2021)