

# YASAMAN TAHOUNI

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Online Portfolio: [www.yasamantahouni.com](http://www.yasamantahouni.com)



## EDUCATION

- Massachusetts Institute of Technology**, Cambridge, MA, USA **Sept. 2015 – June 2018**  
**Master of Science in Electrical Engineering and Computer Science**  
GPA 4.7/5 | *Area of Concentration: Human-Computer Interaction, Artificial Intelligence*
- Massachusetts Institute of Technology**, Cambridge, MA, USA **Sept. 2015 – June 2018**  
**Master of Science in Architectural Studies (SMArchS) | Design and Computation Group**  
GPA 4.7/5 | *Areas of Concentration: Computational Design, Digital Fabrication, Human-Computer Interaction*
- University of Tehran**, Tehran, Iran **Sept. 2013 – June 2015**  
**Master of Science in Architecture | Architectural Technology**  
GPA 19.50/20 | *Areas of Concentration: Computational Design, Digital Fabrication*
- University of Tehran**, Tehran, Iran **Sept. 2008 – Feb. 2013**  
**Bachelor of Architecture**  
GPA 18.67/20

## RESEARCH EXPERIEN

- Institute for Computational Design (ICD) | Stuttgart University**, Stuttgart, Germany **June 2018 – Present**  
**Research Associate**  
Research Areas: Digital Fabrication, Computational Design, Programmable Matter  
*As a research associate, I develop digital design and fabrication (3D-printing) platform for bio-based, adaptive, shape-changing material systems; and I explore their possible implementation across the scales ranging from architecture to wearables and medical technologies.*
- Massachusetts Institute of Technology | MIT Design Lab**, Cambridge, MA, USA **Jan. 2017 – June 2018**  
**Research Assistant/ Team Leader**  
Research Areas: Human-Computer Interaction, Digital Fabrication  
*Starting as a research assistant and later as the project lead, I worked on a series of projects sponsored by Puma company, focused on developing novel smart and adaptive wearable technologies for sportswear application. Example projects include programmable running shoe midsole and self-adjusting basketball shoe.*
- MIT Media Lab | Tangible Media Group**, Cambridge, MA, USA **June. 2016 – Sept. 2016**  
**Research Assistant** to Professor Hiroshi Ishii  
Research Areas: Human-Computer Interaction, Digital Fabrication, 3D-Printing  
*As a research assistant, I developed computational design and digital fabrication formwork for 3D-printing of edible materials, such as pasta and bread dough.*

## TEACHING EXPERIENCE

- Institute for Computational Design (ICD) | Stuttgart University, Stuttgart, Germany** **Jan. 2017 – Feb. 2017**  
**Tutor/ Thesis Advisor**  
*Advising three master's theses, focused in the fields of Huma-Computer Interaction, Interactive Technologies and Programmable Matter.*
- Massachusetts Institute of Technology | IDC (International Design Center)** **Jan. 2017 – Feb. 2017**  
**Teaching Assistant** – to Professor Terry Knight  
 “Making Spaces”  
*A 3-week workshop on design and construction of 1:1 scale Interactive Pavilions*
- Massachusetts Institute of Technology | MIT Media Lab** **Aug. 2016 – Dec. 2016**  
**Teaching Assistant** – to Professor Neil Gershenfeld  
 “How to Make [Almost] Anything”  
*Graduate-level course on Digital Fabrication, Interactive technologies and Electronics*
- Massachusetts Institute of Technology | School of Architecture** **Feb. 2016 – May 2016**  
**Teaching Assistant** – to Professors: Skylar Tibbits, Caitlin Mueller, Jessica Rosenkrantz  
 “Design Studio: Introduction to Design Techniques and Technologies”  
*Undergraduate-level course on Computational Design and Digital Fabrication*
- Azad University of Tehran, West Branch | School of Architecture** **Sept. 2014 – Dec. 2014**  
**Lecturer**  
 “Introduction to Computational Design and Digital Fabrication”  
*Undergraduate-level course on Computational Design and Digital Fabrication*

## AWARDS AND FELLOWSHIPS

- Massachusetts Institute of Technology, Cambridge, MA, USA**  
 2-year MIT Merit Fellowship for Master's Degree **Sept. 2015**
- University of Tehran, Tehran, Iran**  
 Exceptional Talents Full Scholarship for graduate studies **Sept. 2013**
- University of Tehran, Tehran, Iran**  
 National full Scholarship for undergraduate studies **Sept. 2008**

## PUBLICATIONS

- (Dissertation) Y. Tahouni (2018), Augmented Materials: Towards Reconnecting Bits of Mind and Atoms of Hands. *M.S. Thesis, Massachusetts Institute of Technology.*
- Y. Tahouni (Under Submission), NURBS Forms: Direct Manipulation for 3D Modeling, *Tangible, Embedded and Embodied Interaction (ACM TEI 2019)*
- (Dissertation) Y. Tahouni (2015) Computational Design of Lattice Shell Structures Using Morphogenesis algorithm of Diatoms. *M.S. Thesis, University of Tehran*

## SKILLS

### **Programming Languages**

Python, JavaScript, Processing, Arduino, C /C++

### **Embedded Systems**

Circuit Design, Embedded Programming, Physical computing prototyping, Flexible circuit fabrication

### **Digital Fabrication and Prototyping**

3D Printing, CNC Routing, Waterjet and Laser cutting, Molding and Casting, Composites.

### **3D Modeling**

Rhinoceros, Grasshopper, Python & C# scripting in Grasshopper

### **Presentation**

Adobe Suit (Photoshop, InDesign, Illustrator, After Effect), MS Office

## REFERENCES

**Prof. Dr. Terry Knight**, MIT Architecture, USA

**Prof. Dr. Stefanie Mueller**, MIT CSAIL (Computer Science + Artificial Intelligence Lab), USA

**Dr. Federico Casalegno**, MIT Design Lab | Samsung Electronics, USA