

# MYLES SAMPSON III

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Pittsburgh, PA, 15232

## EDUCATION

### Carnegie Mellon University

Major: Ph.D. Computational Design

Pittsburgh, PA  
August 2023 - Current

### Massachusetts Institute of Technology

Major: Master of Science in Architectural Studies  
Concentration: Design and Computation

Cambridge, MA  
August 2020 – May-2022

### Tuskegee University

Major: Bachelor of Architecture  
Minor: Computer Science

Tuskegee, AL  
August 2014 - May 2019

## TEACHING EXPERIENCE

### Carnegie Mellon University

Teaching Assistant – 48783 Generative Modeling

August 2023 – Current

Fall 2023

- Tutored parametric modeling, visual programming, and python scripting to design students

### MIT Department of Architecture

#### 2023 Cambridge, Massachusetts – Massachusetts Institute of Technology

Post-Graduate Teaching Fellow in Digital Fabrication – 4.s12 Intro to Architectural Robotics

Spring 2023

- Developed teaching methodologies around automated tools in architectural environments

Post-Graduate Teaching Fellow in Digital Fabrication – 4. 151 Core-1 Studio

Fall 2022

- Assisted Digital Modeling and Fabrication for the first-year masters of architecture students

Instructor – Jump Start Pre-Orientation Workshop

- Taught courses in 3D modeling and orthogonal drawing for non-background design students

Teaching Assistant – 4.154 Option Studio Blueprints of Justice

Spring 2022

- Tutored students designing for women's rights, sexual healthcare clinics, and public policy reform

Instructor – Intro to Architectural Robotics IAP Workshop

Winter 2022

- Taught robotic pick and place strategies for architectural ideation

Shop Monitor – Rapid Prototyping Lab Shop Monitor

Summer - Fall 2021

- Developed and taught instructional material for the Kuka Agilus robotic arm

Teaching Assistant – 4.507 Intro to Building Information Modeling

Spring 2021

- Tutored BIM, parametric modeling, and visual programming to course 4 undergraduates

Teaching Assistant – 4.501 Art, Object, Space

Fall 2020

- Tutored CAD Modeling, Rendering, and Architectural Design to course 4 undergraduates

### TSACS Advanced Manufacturing TA and Print Lab Manager

#### Tuskegee, Alabama – Tuskegee University

Teaching Assistant and Print Lab Manager– Tuskegee University

- Assisted students with digital manufacturing tools: Laser Cutters, and 3D printers
- Led the Digital Fabrication Workshop at the Tuskegee University DC+M expo
- Maintained the Tuskegee University print lab and troubleshooted machine errors regularly
- Helped students with Grasshopper Scripts for 3D printing and aided the prof. in helping students

August 2018 - May 2019

### Tuskegee University: TUSEP Henderson Hall LEED Lab

#### Tuskegee, Alabama– Tuskegee University

Landscape Architecture Consultant – Tuskegee University

- Landscape design, site and soil analysis, schematic and preliminary site plans
- Sustainable design, landscaping, and LEED requirement analysis

February 2018 - September 2018

## PROFESSIONAL EXPERIENCE

### Autodesk Build Space Resident

#### Boston, Massachusetts – Autodesk Technology Center

Artist/Researcher in Residence

- Discovery architectural approaches to robotic assembly
- Developed methods for 3D model discretization

May 2022 – May 2023

**Goodwyn Mills and Cawood Inc.**  
**Pensacola, Florida – Architecture & Engineering Firm**  
Intern Architect – Architecture

**September 2019 - August 2020**

- Developed Schematic designs for commercial and multi-family buildings
- Crafted BIM models for pre-manufactured metal buildings

**Harvard Graduate School of Design: Design Discovery Program**  
**Cambridge, Massachusetts– Harvard University**

**June 2019 - August 2019**

Urban Design Program Participant – Design Discovery

- Analyzed streets, blocks, buildings, open spaces, and transportation infrastructures as well as the hydrological and environmental conditions of Boston and Cambridge
- Developed innovative solutions to alleviate political, social, and economic tensions between educational intuitions and surrounding communities
- Designed and programmed 1 kilometer of experiential outdoor space along the Charles River through a prototype mobile augmented reality application

**HOK Group**  
**Saint Louis, Missouri– Architecture Firm**

**June 2018 - August 2018**

Summer Intern – Architecture

- Developed architectural drawings submissions for AIA Award STL and HOK's Design Annual
- Assisted with the curation of developer pre-proposal packages for mixed-use commercial and residential buildings
- Orchestrated and conceptualized a garden and pagoda with an emphasis on green re-use and sustainable materials

**Massachusetts Institute of Technology**  
**Cambridge, Massachusetts – International Design Center: Self-Assembly Lab**

**June 2017 - August 2017**

Intern/Undergraduate Researcher - MIT Summer Research Program

- Sand Printing
  - Led processes and materials research for construction methods using Sand.
  - Worked with pneumatic and mechanical devices to create automated construction methods using Sand
  - Analyzed shear stress and yield strength of jammed aggregate structures.
  - Constructed and tested sand structures
- Google Pop-Up Partition
  - Coordinated closely with fabricator, and designers to construct prototypes for an active partition
- Active Materials and Active Textiles
  - Tested varied materials for their active properties
  - Manipulated varied materials using weaving methods to create active textiles

**Bay Design Associates**  
**Pensacola, Florida- Architecture Firm**

**May 2017 - June 2017**  
**May 2016 - August 2016**

Summer Intern – Architecture

- Enhanced Workflow: I created schematic drawings, developed preliminary construction documents, managed punch-lists, investigated LEED requirements, collaborated with clients, and attended AIA and city council meetings, Projects: Medical Office Buildings, Industrial Design, Commercial Buildings

## **PUBLICATIONS**

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### **Journal Papers**

Myles Sampson & Larry Sass, *Robotic Grammars: An Automated System for Design Iteration*,  
(FORTHCOMING)

### **Conference Papers**

Myles Sampson & Larry Sass, "Interlocking Units for Robotically Fabricated Architectural Structure",  
*CRDF 2023 - Phygital Intelligence The 5th International Conference on Computational Design and  
Robotic Fabrication*

### **Theses**

Myles B, Sampson III, "Discrete to Complete: The Fundamentals of Design Directed Robotics,"  
Master of Science in Architectural Studies, MIT, advised by Larry Sass. Cambridge MA, 2022.

Myles B, Sampson III, "Revitalizing Ethnic Neighborhoods for a Multi-Cultural Future" Bachelors of  
Architecture, Tuskegee University, advised by Carla Jackson-Bell. Tuskegee AL, 2018.

### **INVOLVEMENT**

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MIT NOMAS E-Board

MIT Black Graduate Student Association – Administrator and Communications Chair

MIT Graduate Resident Advisor – New House: Chocolate City

Northwest Florida Ronald McDonald House Volunteer

### **AFFILIATIONS**

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National Organization of Minority Architects

2019 – Current

American Institution of Architecture Students (Assoc. AIA)

2019 – Current

### **AWARDS**

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Arthur Rotch Special Prize (2022)

Harold Horowitz (1951) Student Research Award (2022)

Thomas Upham Award-(2020)

Office of Graduate Education Diversity Awards – (2020)

MIT Graduate Fellowship, Massachusetts Institute of Technology – (2020)