

NIA RICH

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EDUCATION

Massachusetts Institute of Technology \ Cambridge, MA

September 2022 - Present

Candidate for Masters of Architecture

Georgia Institute of Technology \ Atlanta, GA

August 2017 - May 2021

Bachelor of Science in Electrical Engineering \ Highest Honors

INTERESTS

relationship between race, culture and design, materials and fabrication, interdisciplinary design, community sustainability, urbanism

SKILLS

Programming: MATLAB, C++, html, css

Software: Rhino, SolidWorks, Adobe Illustrator, Adobe InDesign, Adobe Photoshop, AutoCAD

Fabrication: Laser cutting, soldering, 3D printing, casting, circuit design, wood-working

LEADERSHIP AND SERVICE

MIT NOMAS Co- Chair

June 2023 - Present

- Representative and advocate for the Masters of Architecture Class of 2026

Opportunity Research Scholar Leader

August 2020 - May 2021

- Appointed position
- Held weekly office hours to assist students with career goals, time management, and research skills.
- Aided the head of the program with event logistics and social media.

EXPERIENCE

Design Team Member, J. Yolande Daniels The BLACK City Astrolabe

January 2022– Present

Part of design and fabrication team for Gender and Geography Installation at Venice Biennale 2023

- Designed and implemented a system employing Grasshopper, Rhino and MATLAB for efficiently locating installation components
- Conducted several test models with a focus on materiality and methods of fabrication for wood and metal.
- Built a wooden scaled site model for the installation as part of a team of five.

Radio Frequency Engineer, ViaSat Inc.

June 2021– Present

Work within ViaSat's Antenna Systems Group as an RF engineer and designer for ground satellites

- Coordinated the assembly, test and documentation of a boresight tower antenna system with modifiable polarization and frequency bands to be used to test 19 to 24 meter diameter ground station antenna programs.
- Coordinating the design, test, and assembly of a 7 meter portable antenna.
- Serving as liaison between ViaSat and Georgia Tech's School of ECE for a senior design project concerning new analysis and fabrication techniques for a frequency selective surface.

Research Assistant, Georgia Tech ATHENA Group

August 2019 - May 2021

Research under Texas Instruments and Semiconductor Research Corporation. Designing and fabricating of a blooming origami receiver coil for wireless drone powering.

- Designed, optimized, and fabricated a wide-band voltage doubler rectifier which cut cost in half and led to a more versatile wireless power circuit. The rectifier was fabricated by using inkjet printing and copper etching.
- Optimized and tested the integrated system of origami coils and rectifier at differing distances. Output voltages reached greater than the 15 Volt goal.
- Created a several page research summary and a 10 minute group presentation to successfully relay project details to various end-users.

Intern Architect, Hug & Associates, Architects

June 2015 - August 2018

- Developed, modeled and organized standard details, detail families, and wall types for firm-wide Revit library
- Created schematic design sets and general marketing materials for 10+ multi-million dollar greek housing and mixed use projects for clientele and public review.
- Authored architectural sheet sets and construction management documents using Revit, Acrobat and Procore for greek housing projects such as Alpha Phi at Georgia Tech and Zeta Tau Alpha at NC State.