

Nina Lutz

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Profile

MIT student seeking opportunities starting after June 2021. Passionate about achieving user centric and data driven solutions, especially at the nexus of design and technology.

Education

Massachusetts Institute of Technology

Expected June 2021

Candidate for M.S in Media Arts and Sciences

Massachusetts Institute of Technology

June 2019

B.S. in Computer Science and Engineering with Design

Experience

Graduate Research Assistant, MIT Media Lab

May 2018 - Present

Developing, managing, and planning projects in teams and for independent research for publication and exhibition. Fabricating a projection mapping piece for the MIT Museum, research in architectural lighting and simulation and interactive computer vision, writing software and designing experiences for an interactive generative art works.

Graduate Fellow, MIT Undergraduate Research Opportunities Program

Sep 2020 - Present

Developing programming and facilitating workshops and panels for effective research and research supervision as part of MIT's undergraduate research opportunities program (UROP).

Research Supervisor, MIT Media Lab

Jan 2018 - Aug 2020

Mentoring 2-3 undergraduates each term conducting research and independent projects.

Research Assistant, MIT Media Lab

Nov 2015 - May 2018

Managed projects and sessions with collaborators, and off site deployments to a variety of academic and industrial institutes internationally and domestically. Programmed software for tangible intervention systems. Formulated math models for urban simulation. Developed algorithms to make complex systems more realistic and efficient for real time changes and interaction. Processing, analyzing, and visualizing large sets of spatial data for user intervention. Utilized computer vision, embedded electronics, and projection mapping.

Co-Instructor; MIT Department of Urban Planning Spring

Jan 2019 - June 2019

Developed one month intensive and full semester courses with Ira Winder. Courses taught computational urban science. Giving lectures on GIS data processing and computation techniques, including implementing data structures and algorithms in Java and GIS tools.

Software Engineering Intern, Apple

Summer 2017

Wrote software for localization studies and services across a range of Apple products. Utilized machine learning and various data analysis techniques to understand user trends.

Teaching Assistant, MIT

Sept 2016 - June 2019

Taught and prepared material for multiple classes in Computer Science, Design, and Urban Planning for undergraduate and graduate students. Managed students in fabrication spaces.

Skills

Software: Java, Python, C++, C, JavaScript, Processing, Unity, openFrameworks

Web: Javascript, CSS, Bootstrap. HTML, three.js, OpenGL, p5.js, d3.js, Django, Heroku

Electronics: Arduino, Eagle, PID, General electronics and controllers, Circuit design

Fabrication and Design: CAD (Rhinoceros and Grasshopper), Photoshop, Illustrator, Lightroom, InDesign, Drafting, Laser cutter, 3D Printer, CNC, Woodworking, Hand tools, Water jet

Data Science: Jupyter, R, Stata, SQL, AWS, Postgres, Redis, Statistics, NumPy, pandas

Simulation/Learning: CAFFE, Keras, TensorFlow, SciKit, MATLAB, OpenCV

Misc: Tableau, QGIS, ArcGIS, MadMapper, Projection mapping, Optics, Architectural drafting