Nina M. Lutz

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Experienced product manager and researcher passionate about user and data driven solutions.

Education

Massachusetts Institute of Technology
M.S in Media Arts and Sciences

Massachusetts Institute of Technology
B.S in Computer Science and Engineering with Design

Experience

Research Assistant (Part Time Contract with EDF) *June 2022 - Present*
Working part time as a research assistant with Dr. Katlyn Turner on a systems analysis for the Environmental Defense Fund (EDF). We are performing a mixed methods analysis of diversity, equity, and inclusion within the Environmental Defense Fund (EDF) to evaluate their current policies and practices. Artifacts will include a white paper, data system, and facilitated programming with upper management at EDF.

Product Manager, Redfin *2021 - Present*
Collaborating with UX research, design, and engineering to spec out new products. Enacting research and managing the execution and rollout of internal and consumer facing products on Desktop and mobile platforms. Using analysis to benchmark products and surface new findings for other product and strategy decisions. Roadmapping 1-3 year product planning, research, and priorities. Negotiating for external engineering vendors across multiple stakeholders. Presenting and writing for executive audiences across multiple departments.

Research Assistant, MIT Media Lab *2015 - 2021*
Research management and software development ranging from exhibition preparations for multiple museums, computer vision research, and interactive web art works. Managing off site deployments and sessions for a variety of academic and industrial institutes internationally and domestically. Managing and mentoring undergraduate students. Writing proposals and scoping projects in teams and for independent research for publication and exhibition. Written and oral presentations at several professional and educational venues.

Research Supervisor *2019 - 2021*
Mentoring multiple undergraduates with their research and projects, including planning, overseeing execution, and evaluation.

Instructor; MIT Department of Urban Planning *2019*
Developing a one month intensive and semester long courses. Teaching GIS data processing and computation techniques, including implementing data structures and algorithms.

Teaching Assistant *2016 - 2019*
Assisted with multiple classes in Computer Science, Design, and Urban Planning for undergraduate and graduate students.

Software Engineering, Apple *2017*
Writing software for localization studies and services across a range of Apple products. Utilizing machine learning and various data analysis techniques to understand user trends.

Skills

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

Web: Javascript, CSS, HTML, SQL, Ruby on Rails, three.js, OpenGL, p5.js, d3.js

Electronics: Arduino, Eagle, PID, general electronics and controllers, circuit design

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

Product Management: JIRA, Google Suite, Figma, Heap Analytics

Misc: Tableu, QGIS, ArcGIS, Madmapper, Projection mapping, Optics

Publications

[In Preparation] *EDF Climate Innovation and Equity, Diversity, and Inclusion: a Landscape Analysis*. K. Turner, **N. Lutz**, K. Acuff. 2022.

A Methodology For Digitally Augmented Physical Shrines. ACM CHI 2020, Workshop Paper in HCI at End of Life. April 2020 **N. Lutz.** [Presented remote]

Colloidal Luminaries for Architectural Lighting. ACM BuildSys 2019, Demonstration Abstract. November 2019 **N. Lutz**, V. M. Bove.

Making Up the Unreal. Journal of Design and Science, MIT Press, 23 Oct. 2019, https://jods.mitpress.mit.edu/pub/ristj7wg. **Lutz, N.**

Routing Optimizing Algorithm for Electric Vehicles Applied in North Italy. IEEE Industrial and Commercial Power Systems Europe (2018) M Longo, P Maffezzoni, ***NM Lutz****, L Daniel, X Lu.*

A predictive model to support the widespread diffusion of electric mobility. IEEE International Conference on Models and Technologies for Intelligent Transportation Systems (2017). M Longo, P Maffezzoni, D Zaninelli, **NM Lutz**, L Daniel

Towards an impact study of electric vehicles on the Italian electric power system using simulation techniques. IEEE 3rd International Forum on Research and Technologies for Society and Industry. M Longo, ***NM Lutz****, L Daniel, D Zaninelli, M Pruckner*

Analysis of Tourism Dynamics and Special Events Through Mobile Phone Data . Bloomberg Data for Good Conference (2016). *Y Leng, A Noriega, AS Pentland, I Winder,* ***N Lutz****, L Alonso.*

Teaching

Invited Guest Instructor, Gallaudet University *2021*
Course: Advanced Digital Media
Professor: Max Kazemzadeh

Co-Instructor, MIT Department of Media Arts and Sciences *2021*
Course: DeCentering: Aesthetic Labor and Performance
Co-Instructor: Katlyn Turner, PhD

Teaching Assistant, MIT Department of Urban Studies and Planning *2019*
Course: 11.S187: Hack the City
Instructor: Yuan Lai, PhD

Co-Instructor, MIT Department of Urban Studies and Planning *2018*
Course: 11.S195: Computational Urban Science Workshop
Co-Instructor: Ira Winder

Teaching Assistant, MIT Department of Architecture *2019*
Course: 4.043: Advanced Interaction Design
Instructor: Marcelo Cohelo, PhD

Teaching Assistant, MIT Department of Media Arts and Sciences *2016 - 2017*
Course: MAS.A19: Designing Consumer Electronics
Professor: V. Michael Bove, PhD

Exhibits and Demonstrations

Exhibits:

Infinity Tunnel; Instruments of Vision; MIT Museum Gallery *Dec 2019 - March 2020*
Turning Light; Council Arts MIT Arts on the Radar *Sept 2019*
Connected Coral; MIT Museum *Nov 2018 - Apr 2019*

Demonstrations:

Colloidal Luminaries; BuildSys 2019; Demonstration Award *Oct 2019*
Bits and Bricks; IEEE FTC with Ira Winder *Nov 2017*
MIT Media Lab Members Week *Twice yearly, 2015 - 2021*

Research Deployments

GSK Places Project | Upper Providence, PA | MIT Media Lab City Science *Spring 2018*
Senior software developer for an internal tool for architectural site planning at GSK. Built physical interface on site and led workshops.

GSK UK Manufacturing | Stevenage, UK | MIT Media Lab City Science *Summer 2017*
Assisted with deploying, documenting technology and front end development.

Singapore Pedestrian Accessibility | Singapore and Cambridge, MA *Summer 2016*
Assisted with developing interface that was deployed in Singapore and workshopped in Cambridge. Lead design part of workshop. Built backend and data processing of software.

Awards and Grants

Graduate Community Fellow for Institute Community Equity Office
SIGMOBILE Travel Grant
Best Demonstration Runner Up at ACM BuildSys
MIT Media Lab Members Week Front Page Feature
CAMIT Director's Grant
Best Demonstration at IEEE FTC with Ira Winder

Invited Talks, Presentations, Lectures, and Critique

Guest Lectures and Invited Talks:

11.S187: Hack the City *Spring 2020*
11.526: Land Use and Transportation Planning *Spring 2020*
Luxembourg Fashion Week *Fall 2019*

Invited Critic:

11.S187: Hack the City *Winter 2020*
11.205 Introduction to Spatial Analysis *Spring 2019*
4.043: Advanced Interaction Design Studio *Spring 2019*
11.S195: Computational Urban Science Workshop *Spring 2018*

Undergraduate Students Advised

Spring 2021: Skylar Kolisko (Wellesley)
Spring 2020: Omoruyi E Atekha (MIT, Stanford)
Fall 2019: Omoruyi E Atekha (MIT, Stanford), Elliot Seaman (MIT), Jessica Wang (MIT)
Summer 2019: Elliot Seaman (MIT), Jessica Wang (MIT), Mikayla Bufford (U Madison)
Spring 2019: Elliot Seaman (MIT)
Spring 2018: Max Raven (MIT)

Committees, Community, and Outreach

Redfin, *Intern Mentor*	2022
Paseo Foundation, *Instructor*	2020-2022
Media Arts and Sciences Student Committee, *Large Events Chair*	2019-2021
Urban Science Steering Committee, *Student Member*	2019
Clubes de Ciencia, *Instructor*	2019
Institute Community Equity Office Graduate Community Fellow	2018

References available upon requests