

Anisha Nakagawa

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EDUCATION

OLIN COLLEGE OF ENGINEERING | DEC 2018

BS IN ELECTRICAL AND COMPUTER ENGINEERING, 3.94 GPA

CAMBRIDGE RINDGE AND LATIN HIGH SCHOOL | 2014

Valedictorian, 4.0 unweighted GPA

EXPERIENCE

MIT MEDIA LAB - SPACE ENABLED | SUMMER 2018

Creating an electronic sensor network and agent-based model to predict the growth of invasive water hyacinth on a lake in Benin, Africa, working with a local partner organization.

MIT D-LAB | SPRING 2018

Used monitoring and evaluation techniques to measure the impact of design summits in Ethiopia and at MIT, evaluated D-Lab course data, created data visualizations, and assisted with salesforce database management.

INTROSPECTIVE SYSTEMS | SUMMER 2017

Simulated electricity microgrids to see how artificial intelligence in batteries can stabilize variable renewable energy, using actor-critic neural networks for adaptive dynamic programming.

MIT MEDIA LAB - CHANGING PLACES | SUMMER 2016

Modelled traffic during regional evacuations due to natural disasters, using an agent-based model with queueing theory. Received second place award for presenting results at IEEE MIT Undergraduate Research Conference.

DRAPER LABORATORY | SUMMER 2015

Designed and developed a web-app and Google glass app to display dynamic visual cues, using sensor data and asynchronous communication.

OLIN COLLEGE TEACHING ASSISTANT | 2015 - 2016

Courses: Linearity 1, Modeling and Simulation, Electricity and Magnetism

PROJECTS

COMMUNITY DEVELOPMENT | ADE CAPSTONE - 2018

Project Manager for a senior capstone course in Affordable Design and Entrepreneurship (ADE), working with a community in rural Mississippi to create a mobile education program that introduces technology, entrepreneurship, and arts experiences to youth ages 12-18.

NATURAL RESOURCE MODELING | INDEPENDENT STUDY - 2017

Studied how to optimize diets around the world to reduce the carbon footprint and meet dietary requirements, using sensitivity analysis on the simplex method.

TRANSFORMATIVE CLASSROOMS | HUMAN-CENTERED DESIGN - 2017

Re-designed a classroom to enable individualized learning and normalize special needs, based on interviews and co-design sessions with special educators.

GENTRIFICATION MODEL | DISCRETE MATH - 2016

Created an agent-based model for gentrification in cities using k-means clustering, Bayesian statistics, and Markov models.

SKILLS

Languages

Java, Python, C (Arduino), MATLAB, R, Javascript, Node.js, d3.js, HTML, CSS

Tools

Git, LaTeX, COMSOL, Mathematica, LTSpice, KiCad

Platforms

Arduino, Raspberry Pi, Processing, Android (Google glass)

PUBLICATIONS

A. Nakagawa and J. I. Winder, "Hurricane Evacuation Traffic Model," in 2016 IEEE MIT Undergraduate Research Technology Conference, Cambridge, MA, 2016.

A. Nakagawa, "Control of Smart Energy Microgrids with Predictive Edge Intelligence," poster in 2017 IEEE MIT Undergraduate Research Technology Conference, Cambridge, MA, 2017.

LEADERSHIP

SUSTAINABILITY STEERING COMMITTEE

Worked with faculty, facilities department, and staff to evaluate energy and water sustainability, create a revolving green fund, and create an environmental mission statement.

SUSTAINABILITY CLUB

Co-President

Promoted on-campus sustainability by initiating a reusable mugs program, a drying racks program, and facilitating documentary screenings with discussions.

VOLUNTEER TUTOR

Volunteer math and science tutor at the Cambridge public high school.

AWARDS

- Barry Goldwater Scholarship Honorable Mention
- MIT IEEE Conference Best Presentation
- SWE Scholarship Recipient
- National Merit Scholarship Recipient