

Anisha Nakagawa

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EDUCATION

OLIN COLLEGE OF ENGINEERING | DEC 2018

BS IN ELECTRICAL AND COMPUTER ENGINEERING, 3.9 GPA

CAMBRIDGE RINDGE AND LATIN HIGH SCHOOL | 2014

Valedictorian, 4.0 unweighted GPA

EXPERIENCE

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

Used human-centered design techniques to design and develop 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

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 to determine areas of greatest impact.

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.

CONVOLUTION REVERB | SIGNALS AND SYSTEMS - 2017

Recorded and analyzed the impulse response of physical spaces using a sine sweep, and used convolution to create new sound effects.

GENTRIFICATION MODEL | DISCRETE MATH - 2016

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

NEWS ARTICLES SENTIMENT ANALYZER | SOFTWARE DESIGN - 2015

Created algorithm to compare news sources using sentiment analysis of articles to highlight trends and determine bias.

REFUGEE DATA VISUALIZATION | DATA VISUALIZATION - 2015

Displayed dynamic and interactive map of refugee movement around the world throughout history, based on UN data.

SKILLS

Languages

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

Tools

Git, LaTeX, COMSOL, Mathematica

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.

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 Technical Presentation, second place award
- SWE Scholarship Recipient
- National Merit Scholarship Recipient
- Harvard Edward Kingman Scholarship Recipient
- Education First Environmental Challenge Winner (attended Global Student Leaders Summit in Costa Rica)