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

COMMUNITY DEVELOPMENT | ADE Capstone - 2017
Through a capstone course in Affordable Design and Entrepreneurship (ADE), we are working with a community in rural Mississippi to create a mobile education space 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 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.

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 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