

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, First Honors

EXPERIENCE

MIT MEDIA LAB - CHANGING PLACES | UNDERGRADUATE RESEARCH

June 2016 - Jan 2016

- Modelled traffic during regional evacuations due to natural disasters
- Developed agent-based model for congestion by applying the queueing model
- Created visualization for the simulation by displaying geospatial data in processing

DRAPER LABORATORY | SOFTWARE ENGINEERING INTERN

May 2015 - Aug 2015

- Designed and developed a web-app and Google glass app to display dynamic visual cues, using human-centered design techniques
- Created web-app to receive signals asynchronously through a WebSocket
- Developed android application, interfacing with embedded sensors

DRAPER LABORATORY | SUMMER RESEARCH INTERN

Jul 2013 - Aug 2013

- Implemented path-planning and navigation algorithms on robot, using ROS
- Interfaced with graduate students' work, evaluated success, presented results

OLIN COLLEGE | TEACHING ASSISTANT

2015 - 2016 | Linearity 1, Modeling and Simulation, Electricity and Magnetism

PROJECTS

NATURAL RESOURCE MODELING | INDEPENDENT STUDY - 2017

Studied different mathematical models for modeling resource use in the context of agriculture and food systems. Studied optimization of diets around the world to reduce carbon footprints and meet dietary requirements

TRANSFORMATIVE CLASSROOMS | HUMAN-CENTERED DESIGN - 2017

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

GENTRIFICATION MODEL | DISCRETE MATH - 2016

Created agent-based model for gentrification in cities, using graph theory and shortest path algorithms to describe movement of people.

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 refugees moving around the world over time, from UN data.

MODELING WOLF POPULATIONS | MODELING AND SIMULATION - 2014

Modeled the effect of re-introducing wolves into the Yellowstone ecosystem, and changes in elk and aspen populations. Validated the model with data.

SKILLS

Languages

Java, Python, C++, C (Arduino),
MATLAB, HTML, CSS, Javascript

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.

RELEVANT COURSES

Olin College

- Software Design
- Modeling and Simulation
- Data Visualization
- Sensors, Instrumentation,
and Measurement
- Electricity and Magnetism
- Principles of Engineering
- Discrete Math
- Computer Architecture
- Signals and Systems (Spring 2017)
- User Oriented Collaborative Design
(Spring 2017)

LEADERSHIP

SUSTAINABILITY CLUB

Co-President

Included in periodic meetings with
college CFO, Head of Facilities, and
Sustainability Steering Committee.
Promoting on-campus sustainability
through initiating reusable mugs
program and drying racks programs.

AWARDS

- Barry Goldwater Scholarship
Honorable Mention
- 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)