

## EDUCATION

### MIT

PHD IN MECHANICAL ENGINEERING  
Minor: Machine Learning  
2021 - | Cambridge, MA

### MIT

MS IN MECHANICAL ENGINEERING  
2019 - 2021 | Cambridge, MA

### CALTECH

BS IN MECHANICAL ENGINEERING  
2015 - 2019 | Pasadena, CA  
GPA: 3.9/4.0

## COURSEWORK

### GRADUATE

Machine Learning  
Deep Learning  
Bayesian Inference and Modeling  
Intelligent Robotic Manipulation  
Underactuated Robotics  
Visual Navigation  
Computer Vision  
Analysis/Design of Feedback Control  
Precision Product Design  
Dynamics

### UNDERGRADUATE

Capstone Design Contest  
Robotics & Autonomy  
Experimental Robotics  
Multidisciplinary Systems Eng.  
Mechatronics  
Biotechnology Lab  
Microfabrication Lab  
Nanorobotics  
Information and Logic  
Experiments & Modeling in MechE  
(Teaching Asst 2x)

## SKILLS

### PROGRAMMING

Python • Java • C • C++  
Matlab • R • Mathematica  
HTML • VB •  $\LaTeX$

### ROBOTICS

ROS • Drake • Simulink  
OpenCV • Blender  
Raspberry Pi • Arduino  
UR5 • ABB YuMi • GelSight

### ENGINEERING

CAD: Solidworks • Onshape  
CFD/FEA: Ansys • COMSOL

## RESEARCH

**MIT** MCUBE LAB, RESEARCH ASSISTANT | 2019 -  
ADVISOR: ALBERTO RODRIGUEZ

Developing reactive systems for deformable object manipulation (e.g. cables and cloth) using visuotactile perception and control

**CALTECH** UNDERGRADUATE RESEARCHER | 2018 - 2019

ADVISORS: CHIARA DARAIO AND AARON AMES

Designed a flexible and inexpensive pressure sensor to determine the real-time center of pressure for walking robots

**STANFORD** STUDENT RESEARCHER | 2014

ADVISOR: ANSHUL KUNDAJE

Developed a library in R to choose DNA regions for CRISPR-Cas9 gene editing technology

## INDUSTRY

**VERB SURGICAL** MECHANICAL ENGINEERING INTERN | SUMMER 2018

Google and J&J robotic surgery partnership | Mountain View, CA  
Worked with team interfacing between arm and surgical tool  
Experience in design, sensors, and controls

**KRAENION** ROBOTICS INTERN | DECEMBER 2017, 2018

Startup developing applied computer vision solutions | Los Gatos, CA

- 2017: Prepared forklift prototype to demo stereo vision technology
- 2018: Sensor integration for autonomous wheelchair

**NIMA LABS** MECHANICAL ENGINEERING INTERN | SUMMERS 2016, 2017

Portable food allergen sensor startup | San Francisco, CA

- 2016: Tested multi-channel version of consumer device and isolated key variables affecting chemistry development and camera readings
- 2017: Redesigned multi-channel device from scratch. Created manufacturing and assembly drawings and worked with vendors

## SELECTED PUBLICATIONS

- [1] Y. She\*, S. Wang\*, S. Dong\*, N. Sunil, A. Rodriguez, and E. Adelson. Cable manipulation with a tactile reactive gripper. *The International Journal of Robotics Research (IJRR)*, 2021. **RSS'20 Best Paper Award Finalist.**
- [2] N. Sunil, S. Wang, Y. She, E. Adelson, and A. Rodriguez. Visuotactile affordances for cloth manipulation with local control. *CoRL*, 2022.

More projects and details available at [nehasunil.com](https://nehasunil.com)

## ACHIEVEMENTS & SERVICE

- 2022 Mentored Visiting Student Arnau Saumell
- 2020 RSS Best Paper Award Finalist
- 2019 Co-founded Graduate Women in Robotics Community (GWiRC) at MIT
- 2019 NSF Graduate Research Fellowship
- 2019 MIT Linden/Wong Departmental Fellowship
- 2019 Paul & Daisy Soros Fellowship Finalist
- 2019 Caltech Mechanical Engineering Award
- 2018 Tau Beta Pi Engineering Honor Society
- 2011 Certified Yoga Instructor