HALEY HIGGINBOTHAM

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EDUCATION

Massachusetts Institute of Technology **Class of 2021**

- Candidate for Bachelor's in Bioengineering, Minor in Mechanical Engineering *Cambridge, MA*
- GPA 5.0/5.0

Edgewood Jr./Sr. High School **Class of 2017**

- Valedictorian, GPA 4.0/4.0, SAT: 2360 *Merritt Island, FL*
- Dual-enrolled at Eastern Florida State College, received AA Degree upon high school graduation

EXPERIENCE

Center for Biomedical Engineering **Sept 2019 - present**

Undergraduate Researcher *Cambridge*, MA

- Investigating difficult endotracheal intubation scenarios
- Designing & prototyping an appendage for laryngoscopes to improve visualization and manipulation

Bioelectronics Group **May 2018 – May 2020**

Undergraduate Researcher *Cambridge, MA*

- Built a treadmill and trained mice in order to investigate the recovery of locomotor function after spinal cord injury
- Aided in the fabrication of custom neural probes
- Trained a neural network on the Cloud to perform motion capture video analysis

Newman Lab for Biomechanics and Rehabilitation **Oct 2017 – Dec 2018**

Undergraduate Researcher *Cambridge, MA*

- Used LabView to interface with the MIT-MANUS robot's NI cRIO controller and adapt the robot to provide a platform for investigating the influence of auditory feedback for fine motor control

DLEE Designs, LLC. **June 2016 – Sept 2017**

Part-time Private Contractor Cocoa, FL

- Executed proof of concept studies and integration of hardware and software
- Developed software, conducted data analysis, and produced 3D models

ACTIVITIES

Leadership Programs **Sept 2019 - present**

- Served as Master of Ceremonies at the 2019 Fung Scholar's Leadership Conference in Shanghai
- Candidate for certification from Gordan Engineering Leadership Program

MIT Women's Lightweight Crew **Sept 2017 - present**

- Set the fastest 5k & 2k erg times in the history of the team
- Received the honor of Fastest Freshman

Habitat for Humanity **2014 - present**

- Built houses for local families in need by learning and performing tasks such as framing, waterproofing, landscaping, and installing insulation

SKILLS

- **Computers:** CAM/CAD– Solidworks, Microsoft Office, Moldflow, Python, Arduino, Matlab, LabVIEW
- **Biology:** animal handling (rats and mice), general wet-lab techniques
- **Fabrication:** laser cutter, vinyl cutter, machining, 3d printer, glass-working/fusion, some carpentry, some welding, soldering & solder pasting, gold bonder

AWARDS/HONORS

- National Merit Scholarship Winner
- National AP Scholar Award