

# Nathan Israel Luskey

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## EDUCATION

**Georgia Institute of Technology (Georgia Tech) | Atlanta, GA**

*Expected December 2020*

### **B.S. Biomedical Engineering**

- Minor: Industrial Design & Computer Science
- GPA: 3.92, Major GPA: 3.88

**Scholarships:** Stamps President's Scholar (Georgia Tech's top merit-based scholarship)

## INDUSTRY EXPERIENCE

**Cathaid, Atlanta | GA**

*January - April 2020*

### *Clinical Engineering Internship*

- Improved manufacturability by simplifying construction and geometry while maintaining critical design features.

**Ethicon Endo-Surgery | Cincinnati, OH**

### *Design Co-op in Front End Energy*

*May - August 2019*

- Supported implementation of temperature control algorithm to improve harmonic device heat management

### *Design Co-op in Lifecycle Open Mechanical*

*August - December 2018*

- Improved product usability by quantifying existing linear surgical staplers' performance
- Designed and qualified testing methods and fixtures for ultrasonic weld strength for skin stapler

## RESEARCH EXPERIENCE

**Georgia Tech Healthcare Robotics Lab**

*May - December 2017*

### *Undergraduate Research Assistant*

- Set up 1 Degree-of-Freedom robot to automate data collection on flat samples for training an SVM

## PROJECTS

**Machine Learning: Song Classification for Running Playlists**

*May - August 2020*

- Used k-means clustering and decision tree with pruning to optimize models for classifying songs

**BME Capstone: Intraoral Dental X-Ray**

*January - May 2020*

- Followed FDA waterfall to observe and interview doctors, prototype product, and evaluate doctor's satisfaction

## CAMPUS LEADERSHIP

**Sigma Nu Georgia Tech | Atlanta, GA**

- Honor Council Member

*January 2017 - Present*

**Tech Beautification Day | Atlanta, GA**

*January 2017 - April 2020*

- Work to create meaningful, student led projects for campus improvement
- Progressively served as: Project Coordinator, Projects Director, & VP of Corporate Outreach

## TECHNICAL STRENGTHS

**Software:** Python, Java, MATLAB, SQL, PHP, Solidworks, Testworks, Minitab, LabVIEW, Arduino

**Instrumentation:** CNC Mill, Laser Cutter, 3D Printer, Axial & Linear Load Machines, myDAQ

**Communication:** Technical Reports, Presentations

### **Coursework:**

*Engineering:* Mechanics, Circuits, Statistics, Cell Culturing, Systems & Cellular Physiology, FDA Waterfall

*CS:* Machine Learning, Object Oriented Programming, Data Structures, Algorithms, Git Protocol, CSS/HTML, LaTeX, Jupyter Notebooks

*ID:* Human Factors, Human-Computer Interaction, Needfinding, Sketching

## PUBLICATIONS

2019 Published "Classification of Household Materials via Spectroscopy" in IEEE Robotics and Automation Letters