Nathan Israel Luskey

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EDUCATION

Georgia Institute of Technology (Georgia Tech) | **Atlanta, GA** *December 2020*

B.S. Biomedical Engineering

- Minors: Computer Science & Industrial Design
- 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
- Streamlined data processing pipeline by consolidating methodologies and documentation

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 a 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 – August 2020*

Tech Beautification Day | Atlanta, GA *January 2017 - April 2020*

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

TECHNICAL STRENGTHS

Software:	Python, Java, MATLAB, C, SQL, Solidworks, HSMWorks, 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, Artificial Intelligence, Data Structures, Algorithms, Object Oriented Programming, Git Protocol, CSS/HTML, LaTex, Jupyter Notebooks, Database Management, Mechatronics
ID:	Human Factors, Human-Computer Interaction, Needfinding, Sketching

PUBLICATIONS

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