# Hannah Soifer

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# **EDUCATION**

University of Michigan BSE in Electrical Engineering

Ann Arbor, MI May 2018

International Minor for Engineers

GPA: 3.85/4.00

- Relevant Coursework: Digital Signal Processing, Data Structures and Algorithms, Electrical Biophysics
- Honors:
  - College of Engineering Scholarship of Honor recipient
  - Dean's List 2014-2016
  - Eta Kappa Nu (HKN) Active Member
  - Engineering Honors Program participant

#### **EXPERIENCE**

PeriOperative Designer and Engineer

January 2016-Present

Dominican Republic

Michigan Health Engineered for All Lives (M-HEAL)

- Team goal: design a mattress that regulates a patient's temperature while under anesthesia for hospitals in Jarabacoa and Cabrera, Dominican Republic
- Built mattress using resistive wire, conductive foam, and polyurethane coated nylon
- Designed and integrated control elements, including circuits and Arduino code
- Performed user testing and hospital observations in the Dominican Republic

**Design Challenges Co-Coordinator** 

September 2015-May 2016

Ann Arbor, MI

Michigan Health Engineered for All Lives (M-HEAL)

- Coordinated global health based design competition for underclassmen
- Planned three workshops by working with faculty members and peers
- Mentored two teams through creating prototypes for global health problem

#### Automotive Test Engineering Intern NSF International

May 2016-July 2016

Ann Arbor, MI

- Wrote protocols for certifying proximity sensors and rearview cameras in vehicles
- Regulated brake manufacturers and analyzed data using tools in Excel
- Created PowerPoints about certification programs to send to insurance company representatives

# Signal Processing Research Assistant

University of Michigan Neuroscience Lab

May 2015-May 2016

Ann Arbor, MI

- Studied basal ganglia circuits and their connection to movement disorders such as Parkinson's disease
- Implemented functions to analyze a video and determine if a rat is sleeping
- Implemented functions to determine bursts and average tetrode waveform

### Secretary

May 2016-Present

Ann Arbor, MI

Michigan Health Engineered for All Lives (M-HEAL)

- Created a database to organize all past and present resources for nine project teams and ten officers
- Created a new system for tracking membership involvement
- Designed a new format for weekly announcements that is more interactive for all 200 members

#### **SKILLS**

- Computer:
  - Proficient: C++, MATLAB, Arduino, Microsoft Excel
  - Familiar with: Python, Java, Adobe Photoshop
- Languages: Conversational Spanish