

# Hermes Suen

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## Summary

Engineer at MathWorks with experience in machine learning, deep learning, and statistics. Areas of interest: Reinforcement Learning and Robotics, specifically their applications in Brain Computer Interfaces. See [www.hermessuen.com](http://www.hermessuen.com) for my projects, blog, and other relevant experiences.

## Education

### Tufts University

Medford, MA

B.S. in Mechanical Engineering. Minors: Cognitive Brain Science, Philosophy, May 2019

2015-2019

GPA: 3.79 – Dean's List. Howard Sample Prize Scholarship in Physics. Tau Beta Pi: Engineering Honor Society

Courses to Note: Computational Modeling in Cognitive Science, Advanced Robotics, Data Structures in Computer Science, Probability and Statistics, Material Science and Engineering, Modern Physics, Control Theory, Machine Design

## Professional Experience

### MathWorks, Makers of MATLAB and Simulink

Natick, MA

Engineering Development Group

July 2019-Present

- Developed a process for testing MATLAB Production servers using NodeJS, Python, and ApacheBench
- Investigated novel algorithms for feature selection in Machine Learning and experimented with what their best use cases were
- Applied the latest research in Interpretative Machine Learning to build complex but intuitive models to classify heartbeat data
- Package findings and results to internal MathWorks teams as well as for external customers
- Implemented an infrastructure in JavaScript to change how LiveScripts are saved

### PowerPlay Technologies

Medford, MA

Co-Founder and CEO

October 2016-January 2018

- Led a team of 6 that created an incorporated "smart playground" startup
- Pitched company to be accepted to prestigious MassChallenge startup accelerator
- Won Tufts 100k new ventures competition and Gordon Institute Ideas Competition, receiving over 15,000 USD in funding
- Built and designed multiple versions of prototypes that were tested by potential customers

### BrainCo, Using neurofeedback to train attention

Somerville, MA

Product Intern

November 2017-January 2018

- Presented BrainCo's first product at its debut at the annual CES conference in Las Vegas
- Facilitated discussions with product management on how to bring their first headband market

## Research Experience

### Brain and Cognitive Science Lab @ MIT

Cambridge, MA

Assistant Researcher with PostDocs

August 2019-Present

- Analyze data from deep learning models of human vision to determine categories of images that require recurrent modelling
- Perform statistical analysis comparing multiple different models of human vision
- Clean and package neuronal data to be used by BrainScore, a framework for scoring models on experimental data

### Tufts Center for Applied Brain and Cognitive Sciences

Medford, MA

Research Analyst

December 2016-June 2017

- Visualized brain mapping data using MATLAB
- Facilitated daily experiments in spatial cognition by monitoring participants behavior with virtual reality headsets

## Skills

**Programming Languages:** MATLAB, C++, Python, JavaScript, LabView, Ruby, NodeJS, HTML, CSS

**Software Libraries:** TensorFlow, PyTorch, scikit-learn, numpy, pandas, xarray

**Rapid Prototyping:** Laser Cutting, TIG Welding, 3D Printing, Arduino, Raspberry Pi, Solidworks

**Foreign Languages:** Mandarin Chinese, Korean

## Passions: More at [hermessuen.com](http://hermessuen.com)

### MIT HSSP Program

- Teach Web-Programming to High-School Students (HTML, CSS, and JavaScript)

### Make-A-Wish Granter

- Volunteer with Make-A-Wish to visit families with sick children and help coordinate their wishes

### TEDx Speaker Coach

- Coach speakers for TEDx Tufts, strengthening their ideas and public speaking skills