

# JACOB HOFFMAN

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Portfolio Website - <https://jacobhoffman.tk/>

## EDUCATION

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- Junior at Carnegie Mellon University.
- Computer Engineering Major Class of 2020. 3.52 GPA
- Deans List Spring 2018

## WORK

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- **CMU ECE | Signals Research | Summer of 2018 | Ultrasonic Positioning Systems**

Professor Sankaranarayanan and I worked on close range ultrasonic positioning systems for blind person navigation and precision timing of athletes. Chirps, STFTs, FFTs, are examples of some of the DSP concepts used to implement the system. (More information at the url [yardstick.ml](http://yardstick.ml))

- **CMU ISR | Software Research | Summer of 2017 | Data Mining for Automatic Program Repair**

I mined large quantities of data on GitHub and contributed this data into existing SQL databases in order to be used for automatic program repair. I analyzed this data in R to verify coding practices which contribute to projects with less errors.

- **CMU ECE | Signals Research | Upcoming Projects**

I will be working with Professor Sankaranarayanan on applications of millimeter waves.

## SKILLS

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- I am proficient in C, C#, Java, Python, R, MATLAB, Javascript, HTML, CSS, and SQL.

## MERITS

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### Engineering Experience

- **Patenting** : I have a pending patent on a technology for the guitar industry. It is a technology that takes advantage of the resonance of a body of a guitar to allow guitars to double as a bluetooth speaker.
- **Web Development/Entrepreneurship** : I design websites ([jeffteta.tk](http://jeffteta.tk), [jacobhoffman.tk](http://jacobhoffman.tk), [yardstick.ml](http://yardstick.ml), [hoff.ml](http://hoff.ml)). I am a cofounder of Optimist Track NYC. My web development skills and clothing designs helped the club grow from 0 to 25 registered athletes this year.
- **Software Development** : I am working on a marketplace for Python scripts. The motivation is to provide more incentive for casual programmers who only know Python to write and sell their own software.

### Athletic Achievements:

- Ran an indoor 300m time of 35.19 seconds. 46<sup>th</sup> Fastest in U.S. high schools in 2016
- Tied the CMU 100m school record of 10.7 seconds.

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