

# JACOB HOFFMAN

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

## EDUCATION

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- Senior at Carnegie Mellon University.
- Computer Engineering Major Class of 2020. 3.38 GPA
- Deans List Spring 2018

I am currently taking **OS** and **Intro to Machine Learning**. I have taken **DSP**

## WORK

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- **General Motors | Control Systems | Summer 2019 | Stability Of Vehicle**

I applied control theory concepts to design a brake system for a trailer. The system included ABS and ESC safety features. The system detected the sway of a trailer in real time and dampened sway oscillations by engaging the brakes appropriately. This will prevent trailer accidents and save lives.

- **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. Chirps, STFTs, and FFTs are some of the DSP concepts used to implement the system.

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

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

## SKILLS

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- **Programming languages** : Python, C, C#, Java, R, MATLAB, Javascript, HTML, CSS, and MYSQL.

## MERITS

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### Personal Projects

- **Design** : I have a successfully backed Kickstarter product called the Chochin Wall Lamp. I accrued \$1,500 of Kickstarter backing over 39 days. (robustinnovations.org)
- **Web Development/Entrepreneurship** : I am a cofounder of Optimist Track NYC. My web development skills made the running club grow to over 20 athletes. (jeffteta.tk)
- **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.

### Athletic Achievements:

- I Ran a New Balance Nationals Championship Qualifying time of 35.19 seconds in the 300m.

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