JACOB HOFFMAN

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Portfolio Website - https://jacobhoffman.tk/

EDUCATION / COURSEWORK

- Carnegie Mellon University.
- B.S. In ECE | May 2020
- M.S. In ECE | May 2021
- Dean's List Spring 2018 | 3.38 GPA

(15-410) Operating System Design And Implementation
(18-461/661) Intro to Machine Learning For ECE(Graduate)
(15-213) Introduction to Computer Systems
(18-491) Digital Signal Processing

WORK

- **General Motors | Embedded Controls Intern | Stability Of Vehicle | Summer of 2019**
  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 Dept. Of ECE | Signals Researcher | Ultrasonic Positioning Systems | Summer of 2018**
  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 ISR | Software Researcher | Automatic Program Repair | Summer of 2017**
  Data mined GitHub repository bugs and contributed this data into existing SQL databases to be used for automatic program repair. Analyzed this data in R to verify coding practices which contribute to projects with less errors.

SKILLS

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

PROJECTS

- **Design :** Ran a successfully backed Kickstarter product called the Chochin Wall Lamp. Accrued $1,500 of Kickstarter backing over 39 days. (robustinnovations.org)

- **Web Development/Entrepeneurship :** Cofounded Optimist Track NYC. Utilized web development skills which made the running club grow to over 20 athletes. (jeffteta.tk)

- **Patenting :** 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.

- **Change :** Wrote a petition to The CMU ECE Faculty to make *Mathematical Foundations of Electrical Engineering* an optional course. Proposed giving students the option to substitute the course with a Matrices course and a Diff Eq. course. 329 CMU students signed the petition. (http://chng.it/snrQ5g8v)

Athletic Achievements:

- Three time CMU Buggy King of the Hill 2017-2019.