JACOB HOFFMAN

347-209-2325
jackstudent149@gmail.com

Portfolio Website - https://jacobhoffman.tk

FORMER EDUCATION / COURSEWORK

- Teaching Assistant @ Carnegie Mellon University
- B.S. In E.C.E. @ Carnegie Mellon University (2020)
- CMU Buggy Record Holder (Men's SDCA 2017)
- Inventor of web10 (https://web10.app)
- Dean's List Spring 2018
- (15-410) Operating System Design And Implementation
- (18-461/661) Intro to Machine Learning (Graduate)
- (15-351) Algorithms and Advanced Data Structures
- (18-370) Fundamentals Of Control Theory
- (18-491) Digital Signal Processing

WORK

- **IBM | Artificial Intelligence Engineer | November 2021 – August 2022**
  Developed and evaluated Natural Language Processing Contextual QA models for the APEL U.S. Navy search engine. Contributed to underwater machine learning classification systems. *Classified*

- **Johns Hopkins Applied Physics Laboratory | Data Scientist | May 2021 – November 2021**
  Developed decision making algorithms for U.S. anti-missile systems similar to Israel's famous Iron Dome system, but used for much more dangerous threats. Contributed machine learning and control theory skills. *Classified.*

- **Greenstar Group | Software Contractor | December 2020 – April 2021**
  Developed full stack technology for Sentact LLC. (healthcare) and Cardiff, Provins & Angel LLC. (finance)

- **Uncommon Core | Software Engineer | November 2019 - November 2020**
  Developed an automatic grading API incorporating techniques such as Hough Line Transforms, Gaussian Blur and Convolutional Neural Networks. Moved the team onto a Google Cloud solution utilizing Docker and Kubernetes.

- **CMU Dept. Of ECE | Teaching Assistant For (Graduate) Introduction To Machine Learning | Spring 2020**
  Taught graduate students fundamental machine learning techniques such as Linear Regression, Naïve Bayes, Logistic Regression, Multiclass Classification, SVMs, Nearest Neighbors, Decision Trees, Ensemble Methods, Neural Networks, Clustering, PCA, Online Learning, and Reinforcement Learning.

- **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 instability of a trailer in real time and dampened trailer sway by engaging the brakes.

SKILLS

- Pytorch | Tensorflow | Numpy | Pandas | Computer Vision | Docker | Kubernetes | Python | Flask | FastAPI | JS | HTML | PHP | CSS | React | REST | FLUX | Selenium | Test Driven Development | CI/CD | MongoDB | MySQL | PostgreSQL | Google Cloud | AWS | Rust | Golang | gRPC | MATLAB | R | C | Linux | Git | PowerShell | C++ | Java | Kotlin

TRACK AND FIELD ACHIEVEMENTS

- Ran the 46th fastest indoor HS 300m time of 2016 in the U.S.A (35.16 Fully Automatic Time, Stuyvesant Grey Ducks)

Portfolio Website - https://jacobhoffman.tk