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Peter Munn

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EDUCATION

CORNELL UNIVERSITY
BA, Computer Science
3.52 / 4 GPA
Aug. 2018- May 2021 (expected)
Milstein Scholar

PHILLIPS ACADEMY ANDOVER
5.5 / 6 GPA
Sept. 2014- June 2018
Cum Laude (June 2018)

SKILLS

PROGRAMMING
Python (Proficient)
Java (Proficient)
C (Experienced)
ARM Assembly (Experienced)
JavaScript (Learning)
HTML (Learning)
CSS (Learning)
Swift (Learning)

SOFTWARE
Jupyter Notebook • Pytorch • Mathematica • Logger Pro

LANGUAGES
Native or bilingual proficiency
Spanish• Portuguese • German
Elementary proficiency
Mandarin (3 years of study)

EXPERIENCE

RESEARCH ASSISTANT- NEURAL NETWORKS Aug.- Dec. 2019
Research in McMahon lab for Quantum Computing. Used Pytorch to create ordinary differential equation based neural networks to be optimized by Coherent Ising Machines for regression and classification problems

CIRCUIT ENGINEER- SOUND LASER Aug.- Dec. 2019
Designed circuit for experimental sound laser-- used function generators, oscilliscopes, and frequency modulation to send any frequency in collimated beam of sound with little diffraction, effectively a sound "laser"

SOFTWARE MARKET ANALYST- CANTO May- Aug. 2019
Characterized the Digital Asset Management software market, infiltrated competitors to extract and analyze market strengths and trends, presented market research findings to subteams and entire San Francisco team

PROJECTS

MILSTEIN HAT FOR THE BLIND Aug. 2019- Current
Designed circuitry for hat with distance sensors that relay distance and direction of objects ahead, created protoype within first two months. Now developing sound engine for iOS application to process environmental input from ultrasonic speakers to convey direction and distance to objects ahead of low-vision users. (milstein-program.as.cornell.edu/h-t-seeing-sound)

ONLINE LIAR'S DICE Jul. 2020- Current
Working in team of three to develop javascript Perudo, aka liar's dice, for use in quarantine scenarios. (github.com/CodingPerudo)

ONLINE ORBIT SIMULATOR Jun. 2020
Designed javascript orbit simulator using real physics. Implemented collisions, gravitational force, and proper scaling. (petermunn.me/gravitygame/ball_game.html)

AUTOMATIC BIRD FEEDER May- Jun. 2020
Created multiple hardware prototypes and coded features using interrupt-based design in C and ARM-Assembly. (youtube.com/watch?v=WPCNazwXxno)

HONORS & AWARDS

MILSTEIN SCHOLAR
Cornell- May 2019
One of 25 students in inaugural class of Milstein Program in Humanity and Technology

COMMUNITY ENGAGEMENT LEADERSHIP AWARD
Phillips Academy- June 2018
Given for excellence in leading a community service program

STEVENSON PRIZE
Phillips Academy- June 2018
Awarded to top German language student of graduating class

STEM CLASSES

COMPUTER SCIENCE
- CS 1110: Introduction to Computing Using Python
- ECE 1210: Smartphone Computing Technology
- CS 2110: OO Programming and Data Structures
- CS 2800: Discrete Structures
- CS 3420: Embedded Systems

PHYSICS & MATH
- MATH 1920: Multivariable Calculus for Engineers
- MATH 2930: Differential Equations for Engineers
- MATH 2940: Linear Algebra for Engineers
- PHYS 1116: Physics I: Mechanics and Special Relativity *(Honors)*
- PHYS 2217: Physics II: E&M *(Honors)*
- PHYS 2218: Physics III: Waves & Thermal Physics *(Honors)*
- PHYS 3316: Basics of Quantum Mechanics