Kevin Pezzulich

(617) 659-1670 | ksp79@cornell.edu

PROFILE: Sophomore with strengths in the sciences and math. Excellent analytic and hands-on problem solving skills. Self-starter, diligent and innovative. Internet proficiency including web research and navigation of social media sites. Skills in multiple CAD software programs and Python.

EDUCATION

Education: Cornell University College of Engineering Expected Year of Graduation: 2028
Wellesley High School, Wellesley MA
Intended Major: Mechanical Engineering
Freshman GPA: 3.56
Career of interest relevant classes: Currently enrolled in Diff EQ, Statics, Thermodynamics, and Physics E&M
Skills: Fusion 360, Onshape CAD design, Python, Word, Excel, Google Suite, CANVA, Lucid,

WORK/VOLUNTEER EXPERIENCE

Associate, Home Depot, Natick, MA Summer 2024

- Learned about large department store management and specific applications such as best practices for gardening as well as general knowledge about store products.

Intern, Department of Public Works Engineering Division, Sharon MA Summer 2022

- Worked with town officials to solve civil engineering challenges such as surfactant infiltration of groundwater and build drainage solutions for local communities to prevent contamination of wildlife.

ACTIVITIES

Cornell University:

- Cornell University Mars Rover
  - Worked to design and fabricate a model lander to enable the rover to practice in a competition-like environment.
- Cornell Club Hockey

INDEPENDENT BUILDING PROJECTS

Motorized Drift Tricycle: Designed and built from scratch with hand tools. Project included fabrication and assembly of tricycle frame, wiring harness mounts and engine mounts. Installed fuel system with tubing, and rear axle into frame. Used a 125cc dirt bike engine and incorporated a bmx bike for front-half steering. Project focused mainly on mechanical engineering concepts such as stabilization and structural integrity under load.

***Prosthetic Hand*:** Designed from scratch in Fusion 360. Incorporated 25+ 3d printed pieces into a fully functioning prosthetic hand which utilized servos for movement. Coded a program which uses a camera to identify an operator's hand within its field of view and then separate each individual finger so the hand could mirror each finger's movement.

Blackjack Card Counter: Worked with a group to design a structure which supported adding a camera above a table on which blackjack would be played. Wrote a program with a group to identify cards dealt on the table and incorporated data analysis and blackjack betting tables. Involved creating a system which would count and log the cards dealt, giving the computer an edge over the "house" and therefore operate at a profit over time given a large enough sample size. This could "theoretically" have been used in an actual casino to cheat at blackjack.
Link to engineering portfolio