Taylor Tabb

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Education

Carnegie Mellon University. Pittsburgh, Pennsylvania. GPA: 3.08.
B.S. Mechanical Engineering, Fall 2018 | M.S. Mechanical Engineering, Spring 2019

Work Experience

Mattel, inc.

Product Development Intern | Summer 2017

- Acted as a project manager and engineer for The Fast & Furious line of die-cast cars.
- Ensured team met development milestones, led weekly team meetings with managers and directors, and gained knowledge of industrial manufacturing methods.
- Implemented a new efficient way of detecting scheduling discrepancies between factories.

Department of Mechanical Engineering

Teaching Assistant | Spring 2017, Fall 2017

- First undergraduate TA for 24-354: Gadgetry: Sensors, Actuators and Processors, a mechanical engineering course that serves as an introduction to mechatronics.
- Generated significant course content, assisted students during labs, graded assignments, wrote solution guides, and managed course website.

Department of Mechanical Engineering

Undergraduate Researcher | Fall 2017

- Solved power control problems, programmed Arduino boards, and designed circuitry to control a servo motor embedded in student built cranes.
- Fabricated 10 controllers to support students in 24-262 Stress Analysis.

Projects

Soft Robot Fingbot Spring 2017

- Built a soft robotic actuator and pneumatic control system to provide grip strength assistance on a human finger as a semester long group project in a humanoids robotics course.

Buggy Fall 2016 - Spring 2017

- Head mechanic for a 30 person team responsible for building and maintaining 7ft long composite gravity racers as a part of CMU's annual 1.5km buggy race.
- Designed and fabricated steering, braking, and structural systems.
- Managed a budget, organized logistics, and motivated team, leading to fastest time in 9 years.

Mechanical Crane Project Spring 2017

- Designed a miniature crane using a lever and truss system to lift a weight to a specified height, with size, stress and weight constraints on a class project team in Stress Analysis.

Radio Astronomy Summer 2016

- As a summer project, built a small Radio Telescope to observe the microwave emissions of neutral hydrogen atoms in space.
- Learned to use command line Linux, Raspberry Pi, and some basic electrical components.

Skills

CNC, 3D Printing, Laser Cutting, Composite Hand Layups, Standard Machine Shop Tools.

Solidworks, Agile PLM, Matlab, Arduino, MasterCam, Maple, Rhino, Basic Python Programming, Visio, SPSS, Adobe Creative Suite.

Course Highlights

Intro to Materials Science & Engineering
Communication Design Fundamentals
Principles of Computing
Industrial Design Fundamentals Industrial
Engineering Project Management
Design For Manufacture & The Environment

Leadership

Orientation Leader, Tour Guide, Improv Troupe Manager, Sigma Phi Epsilon President.