TAYLOR TABB

WWW.TABB.ME
TABB@CMU.EDU

EDUCATION

CARNEGIE MELLON UNIVERSITY
M.S. Mechanical Engineering
Spring 2019 | GPA 3.7
B.S. Mechanical Engineering
Fall 2018 | GPA 3.1

SKILLS

HARDWARE

- CNC
- Mill
- Welding
- Composites
- DC Circuits
- 3D Printing
- Lathe
- Laser Cutting
- Resin Casting
- Thermoform

SOFTWARE

- SolidWorks
- Arduino
- Photoshop
- InDesign
- ModBus
- MATLAB
- Python
- Illustrator
- SPSS
- Agile (PLM)

LEADERSHIP

- MechE Inter-Org Committee
- Sigma Phi Epsilon President
- Orientation Leader
- Office of Admission Tour Guide
- Improv Troupe Manager

COURSEWORK

- Electromechanical Systems Design
- Industrial Design Fundamentals
- Engineering Project Management
- Communication Design Fundamentals
- Human Experience In Design
- Design For Manufacturing and The Environment
- Gadgetry: Sensors, Actuators, and Microprocessors
- Principals of Computing
- DIY Design and Fabrication

WORK EXPERIENCE

DEEPLOCAL | ENGINEERING INTERN
PITTSBURGH, PA| SUMMER 2018

- Developed engaging experiential robotic systems for Google.
- Applied ultra-fast development timelines for a custom poster making robot.
- Fabricated new components to improve CoreXY cartesian motion platform.
- Prototyped self-test program for a critical electromechanical subsystem.
- Activated robot in Cannes, France at the International Festival of Creativity.

MATTEL, INC. | PRODUCT DEVELOPMENT INTERN
LOS ANGELES, CALIFORNIA | SUMMER 2017

- Acted as engineer and project manager for a large line of die-cast cars.
- Coordinated manufacturing operations between USA HQ and Asia offices.
- Solved development challenges, brought ~100 toys from ideation to launch.

CARNEGIE MELLON UNIVERSITY | TEACHING ASSISTANT
PITTSBURGH, PA | SPRING 2017, FALL 2017, SPRING 2018

- First undergrad TA for Gadgetry: Sensors, Actuators and Processors.
- Carnegie Mellon's introductory mechatronics course.
- Generated course materials and assisted students during labs.
- Graded assignments, wrote solution guides, and managed course websites.

RESEARCH

MORPHING MATTER LAB | SCHOOL OF COMPUTER SCIENCE

- Current research on twisted-then-coiled polymer shape-memory fibers.
- Investigating applications in smart clothing and thermally responsive textiles.
- Designed and fabricated machine to form fibers longer than other methods.

PROJECTS

BUGGY | FALL 2016 - PRESENT

- Led the design and fabrication of 7ft long composite gravity racers.
- Machined steering and structural components from steel and aluminum.
- Used CAD, simulations, and iterative design to develop new parts.
- Led a 30 person team to fastest team time in a decade.

SOFT ROBOT FINGBOT | SPRING 2017

- Built a soft robotic actuator and pneumatic control system for a human finger.
- Used custom 3D printed molds to cast pourable silicone.
- Designed Arduino based controls of pump and valve system.
- Built as a semester long group project in a humanoids robotics course.

RADIO ASTRONOMY | SUMMER 2016

- Built a small radio telescope to observe stellar neutral hydrogen atoms.
- Used command line Linux, Raspberry Pi, and basic radio components.