



EDUCATION

Northwestern University

MS in Robotics

4.0 GPA

Sept. 2017 - Sept. 2018

Brigham Young University

BS in Mechanical Engineering

Italian minor

3.65 GPA

Jan. 2013 - Apr. 2017

SKILLS

Programs: MATLAB, Simulink,
Python, C++, ROS, Solidworks,
AutoCAD, and Autodesk Inventor

Design and soldering of printable
circuit boards

Fluent in Italian

Team Player, interpersonal and
communication skills, problem
solver, self-starter

ADDITIONAL EXPERIENCE

President of BYU Mechatronics Club

Educational Outreach - Teaching
Lego Mindstorms to Elementary
Students

Instructor of Italian 101 at BYU

Volunteer for 2-year church
mission in Milan, Italy

Eagle Scout

DREW WARREN

214.415.0071 | drewbwarren@gmail.com | drewbwarren.github.io

WORK EXPERIENCE

Mechanical Engineering Intern at SpotterRF

Jan. 2016 - June 2017

- Assess and design mechanical and electrical hardware solutions
- Test and measure data from radar surveillance modules
- Prototype systems of IP-based devices

Power Wheels Upgrade for Special Needs for Speed

June 2016 - Sept. 2016

- Collaborated with charity group Special Needs for Speed
- Redesigned a children's Power Wheels car using microcontrollers, motors, and batteries to customize it for child with severe dwarfism

Research Assistant in BYU Turbomachinery Lab

June 2015 - Jan. 2016

- Pre and post processing for computational fluid dynamics of jet engines
- Contributed to the research of PhD students and Dr. Stephen Gorrell

ACADEMIC EXPERIENCE

Baxter Butler: Robot Operating System Project

Sep. 2017 - Dec. 2017

- Built an interprocess communication system using ROS
- Solved constrained path planning using MoveIt!
- Gathered 3D vision with a PrimeSense Xtion camera

Mobile Robot Arm Project

Sep. 2017 - Dec. 2017

- Calculated joint and wheel angles to move in a desired path
- Designed a feedforward and PI controller
- Analyzed effect of dynamics on motion

BYU Mars Rover Team: Embedded Systems Subteam

Sep. 2016 - June 2017

- Programmed embedded computers and microcontrollers
- Designed and fabricate PCBs for rover peripherals
- Created a communication network across electrical components

Design of Control Systems Course

Sep.. 2016 - Dec. 2016

- Converted physical systems and equations of motion into transfer function models
- Designed controllers using PID, state space, and frequency domain techniques
- Programmed simulations of control systems using MATLAB, Simulink, some Python

Ping Pong Ball Shooter Robot: Mechatronics

Sep.. 2015 - Dec. 2015

- Designed and fabricated printed circuit boards and built mechanical parts
- Programmed a PIC24 microcontroller that managed the robot subsystems

Personal Robotics Projects

- Phone-controlled Garage Door Opener
- USB Camera Gimbal