Michael **Farrell**

1 White Sail, Laguna Niguel, CA 92677

(949) 521-8329 | michaeldavidfarrell@gmail.com | mmmfarrell | mmmfarrell

Education

Brigham Young University
Provo, UT

M.S. Mechanical Engineering — *Dec. 2019*

- Research: Visual Inertial Estimation
- GPA: 4.0/4.0
- Course Work: Autonomous Systems, Deep Learning, Robotic Vision, Advanced Computer Vision

Brigham Young University
Provo, UT

B.S. Mechanical Engineering — *Apr. 2017*

- Cummulative GPA: 3.99/4.0
- Elective Courses: Flight Dynamics and Control, Design of Mechatronic Systems, Design of Control Systems, Robotics

Work Experience

Brain Corporation
San Diego, CA

R&D Software Engineering Intern — *Jun. 2018 - Aug. 2018*

- Collaborated on a code base of 1 Million+ lines of code using GitHub.
- Researched and implemented new motion planning algorithms for a ground robot.

MAGICC Lab, Brigham Young University
Provo, UT

Graduate Researcher — *Sep. 2016 - Present*

- Researching autonomous landing of multirotor UAVs on moving platforms.
- Experience wrigin custom control and navigation code for fixed-wing and multirotor UAVs.

ADSYS Controls Inc.
Irvine, CA

Mechanical Engineering Intern — *May 2016 - Aug. 2016*

- Created methods and fixtures for testing precision of 4-axis gimbal to 100's of μRad.
- Presented work weekly to CEO and head engineers.

Aerofit LLC.
Fullerton, CA

Mechanical Engineering Intern — *May 2015 - Aug. 2015*

- Trained department leader and employees for new $10 million/yr. product line.
- Planned and oversaw testing of over 400 hydraulic fittings for aerospace applications.

Project Experience

Autonomous UAV Team
Provo, UT

Brigham Young University — *Oct. 2015 - June 2017*

- Led team of 40+ undergraduates that placed 10th in international AUVSI competition.
- Implemented guidance algorithms for autonomous takeoff, landing, and obstacle avoidance.

Mars Rover Team
Provo, UT

Brigham Young University — *Aut. 2016 - June 2017*

- Placed 4th in international University Rover Challenge.
- Developed new autonomous driving and navigation capabilities of rover.

Skills & Technologies

Programming Languages
- C++
- Python
- Matlab
- Bash

Technologies
- Git
- ROS & Gazebo
- Tensorflow
- OpenCV
- Linux

Concepts
- State Estimation
- Linear & Nonlinear Controller Design
- SLAM
- Deep Neural Networks