

# Jason Anderson

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## Education

### Stanford University

*MS Aeronautics and Astronautics*

Stanford, CA

*Expected Mar 2021*

Coursework Decision Making Under Uncertainty, Optimal and Learning-based Control, Principles of Robotic Autonomy, Space Mechanics, State Estimation

### University of California, Berkeley (UCB)

*BS Mechanical and Nuclear Engineering*

Berkeley, CA

*May 2019*

Coursework Data Structures, Estimation, Feedback Control, Finite Element Method, Machine Learning, Model Predictive Control, Optimization, Nuclear Reactor Theory, Vehicle Dynamics and Control

## Teaching and Work Experience

### Stanford University

*Teaching Assistant for ME123: Computational Engineering*

Stanford, CA

*Spring 2020*

*Course Grader for EE103: Introduction to Matrix Methods*

*Winter 2020*

### General Atomics

*Legal Engineering Department Specialist*

San Diego, CA

*May 2016 - Jan 2020*

- Review agreements, communications, and reports to provide feedback on technical understanding; write procedures; improve logistical work flow with software; liaison among senior executives and technical experts

### UCB Residence-Hall Tutoring Services

*Physics Tutor*

Berkeley, CA

*Dec 2015 - May 2016*

- Tutored undergraduate students in Newtonian mechanics, electricity, and magnetism
- Wrote challenging review problems and solutions for large student group review sessions

### Mathnasium

*Mathematics Tutor*

Roswell, GA

*Aug 2014 - Aug 2015*

- Tutored multiple students simultaneously of ages 6-18 of varying skill levels

## Technical Internships

### SpaceX

*GNC Associate Engineer - Post Grad - Falcon Avionics and Space Lasers*

Hawthorne, CA

*Summer 2020*

### General Atomics

*Mechanical and Software Engineering*

San Diego, CA

*Summer 2019*

- Fixed look-down gimbal pointing algorithms on weather-balloon hoisted glider under time pressure for mid-summer government customer demo by authoring and performing simulations, lab, and flight tests
- Developed dynamic satellite simulation for satellite laser communication to verify pointing control algorithms

*Mechanical and Software Engineering*

*Summer 2018*

- Developed Target queuing and clearing house for anti-missile, anti-mortar laser defense gimbal system
- Designed and implemented c++ coding of gimbal coordinate system calibration, differential GPS localization, clearing house, and system identification for embedded gimbal control

*Mechanical Engineering*

*Summer 2017*

## Team Projects

*Cooperative Oversized Lifting With Two Roomba-like Robots*

*Spring 2019*

- Two robots lift a fixed-length, long load where the second autonomously follows the first and protects the load from stress in transport: developed model predictive control path planning and low level hardware drivers in python, c++, and ROS

*Cooperative Lifting with Multiple Quadcopters under MPC in ROS Simulation*

*Fall 2018*

- Developed model predictive control algorithms, simulator, and visualizer in python and ROS

*Scale model Autonomous Lane-keeping Car*

*Spring 2018*

- Assembled and programmed control algorithms for vision-based lane-keeping autonomous car. Placed first in Berkeley Autonomous Race Car final race.

## Skills

Languages C++, Java,  $\text{\LaTeX}$ , Mathematica, Matlab, MCNP, Python, Simulink

Frameworks CMake, CVXPY, GTest, JSONRPC, OpenCV, ROS, TensorFlow, YALMIP

Software ANSYS, AutoCAD, Clion, IntelliJ, Solidworks, PyCharm