Steven Rivadeneira

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Education

Georgia Institute of Technology *08/2019 – 12/2021*
M.S in Aeronautics and Astronautics – GPA: 4.0/4.0 *Distance Learning*

Massachusetts Institute of Technology *08/2013 - 06/2017*
B.S in Aeronautics and Astronautics *Cambridge, MA*

- Relevant Coursework: Intro to Comp Sci, Feedback Control Systems, Automatic Control, Astrodynamics, Dynamics

Experience

Lockheed Martin Corporation *03/2019 - Present*
Guidance Navigation and Control Engineer *Orlando, FL*

- Lead guidance navigation control standup for the hypersonic missiles: ARRW and TBG in C++ and Simulink.
- Lead ARRW software development of guidance and control algorithms.
- Lead development and implementation of the Air Data Estimator for ARRW using Kalman Filter, C++ and Linux.

Binera, Inc. *08/2017 – 03/2019*
Aerospace Engineer / NASA Consultant *Rockville, MD*

- Sole developer of crew time model– data munge & analysis used to estimate crew time demands for Mars missions.
- Lead developer of logistics model – uses rates to calculate crew logistics requirements to the nearest kilogram.
- Directly supported NASA Langley and HQ in initial design & assessment of Mars human reference architectures.

MIT Senior Design Project – Flight Vehicle Engineering *09/2016 – 06/2017*
Undergraduate Student in the Structures Team *Cambridge, MA*

- Designed wing spar and joiner through detailed structural analysis, primarily using SolidWorks FEM software
- Tested wing structure for modularity and long endurance, redesigned the wing structure as required.
- Delivered PDR and CDR presentations to our client, Lincoln Laboratory, iteratively improving design over time.

Massachusetts Institute of Technology – Quadcopter Control *09/2016 – 06/2017*
Undergraduate Student in Feedback Control Systems course *Cambridge, MA*

- Used linear control techniques such as Kalman Filter, LQG, LQR to control and maneuver quadcopter for stable flight
- Implemented and extensively tested the behavior of linear control techniques via Matlab/Simulink, Linux, and C++

MIT Department of Earth Planetary and Atmospheric Sciences *01/2015 – 03/2015*
Undergraduate Researcher *Cambridge, MA*

- Analyzed orbital trajectory options for cube satellites in LEO using STK as primary software aid
- Performed orbital analysis trade studies to narrow down trajectory options. Primarily used Mathematica.

Skills

- Proficient knowledge of Python, C++, Javascript, MATLAB/Simulink atica and SolidWorks
- English and Spanish: Native/Bilingual proficiency. French: Full professional proficiency

Recognitions, Leadership & Memberships

- Phi Beta Lambda National Statistics Competition – *First Place Winner* (National)