

**Mario Sebasco**  
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Portfolio - <https://mariosebasco.github.io>

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## OBJECTIVE

Seeking internship or employment opportunity in the area of mechanical or aerospace engineering utilizing leadership and problem solving skills.

## EDUCATION

### Northwestern University

Evanston, IL

*Master's in Robotics Engineering, September 2017*

GPA 3.825

### University of Miami

Coral Gables, FL

*Bachelor of Science in Mechanical Engineering, May 2016*

*Minor in Mathematics,*

GPA 3.86 – Magna Cum Laude

## EXPERIENCE

### NASA Ames Research Center, Mountain View, California

Research assistant: Multidisciplinary Aeronautics Research Team Initiative program

June 2015 – August 2015

- Worked in the design, testing, and integration of unmanned aerial systems, specifically autonomous quadcopters.
- Served as the lead of the CFD team researching urban wind environments and their effect on low flying UAS's.
- Developed an optimization algorithm in MATLAB that could numerically calculate the fastest path between to points while taking into account nearby wind velocities obtained from CFD tests.
- Aided in the incorporation of control systems dealing with wind prediction and motor failure algorithms.
- Presented my research at the annual UTM convention, as well as to several NASA administrators both on and off the center.

### University of Miami Department of Mechanical and Aerospace Engineering, Coral Gables, FL

Computational Fluid Dynamics laboratory research, Dr. Zha

November 2014 – June 2015

- Aided my mentor in his research investigations by familiarizing myself with the concepts of CFD, Including mesh generation, computer programming, numerical schemes, and more.
- Used my knowledge of aerodynamics and fluid mechanics in order to analyze results obtained from CFD simulations. Examples included planes, airfoils, wings, nozzles, and more.
- Participated in the design, and CFD testing, of the "Supersonic Bi-Directional Flying Wing".

### Verizon, Terremark, Miami, FL

Power Provisioning Engineering Intern

May 2014 – January 2015

- Aided in the management and organization of Verizon owned data centers around the world.
- Directly worked with engineers in order to integrate new European data centers into Verizon operated cites.
- Created and analyzed electrical reports and CAD generated grids.

## SKILLS

Computer Applications: ROS, MATLAB, Python, C++, C, MS offices, Mathematica, Solidworks, Linux/Mac/Windows OS, ANSYS, OpenFoam

## ACTIVITIES/HONORS

- Scholarship recipient of the Great Minds in STEM program (2016), featuring a sponsorship from Boeing.
- Member of Students for the Exploration and Development of Space (SEDS). Helped found the club at the University of Miami. Participated and competed in the NASA Robotic Mining competition.
- Member of Engineers without Borders (EWB). Helped kick-start a new project which looked into rehabilitating a school in the city of San Jose, Panama.