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<https://mariosebasco.github.io/msr-student-template/>

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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*

### 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 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 sites.
- Created and analyzed electrical reports and CAD generated grids, each of which was crucial in the development of the company's projects at the time, and greatly facilitated the tasks of other workers.

## SKILLS

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

## ACTIVITIES/HONORS

- Scholarship recipient of the Great Minds in STEM program, 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.