**Campus** 1000 Olin Way MB 148 Needham, MA 02492

# Joseph Kochevar

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# **QUALIFICATIONS SUMMARY**

Graduating Mechanical Engineering Student with a strong background in mechanical design, finite element analysis, fabrication, and optimization. Possesses multidisciplinary industry-level engineering experience and a demonstrated ability to perform in a multitude of roles with high levels of success.

#### **EDUCATION**

#### Franklin W. Olin College of Engineering - Needham, MA

May 2016

Candidate for Bachelor of Science in Mechanical Engineering: Senior, 3.68 GPA Recipient of 4-year, 50% Olin Merit Scholarship

Coursework includes: Mechanical Design, Mechanical and Aerospace Systems, Transport Phenomena, Dynamics, Thermodynamics, Applications of Microfluidics, Principles of Engineering<sup>†</sup>, Design for Manufacturing (†: Returned as Course Assistant).

#### **EXPERIENCE**

# Olin College Blind Sailing Research Team – Needham, MA

# Mechanical Engineer, Researcher

June 2015 – Present

- Led mechanical design to outfit a sailboat with equipment to enable it to be sailed competitively by blind sailors.
- All designs were required to adapt to user needs, be entirely saltwater resistant, and be serviceable on the water.

### **Protedvne Corporation** – Windsor, CT

# Mechanical Engineering Intern

June – August 2014

- Assisted in design and modification of large-scale laboratory automation systems.
- Manipulated and created drawings, parts, and assemblies using SolidWorks.

# Intuit: QuickBase- Waltham, MA

# PD Engineering Intern, Private Contractor

June 2013 - March 2014

- Worked as a full-time engineer on the QuickBase Delight Product engineering team.
- Answered customer feedback, and added features to the automated email system.

#### ATK Aerospace Systems: Space Mission Systems Division – Monterey, CA

**Engineering Intern** 

June – August 2012

Worked with a team of engineers on UAV sensing payload modules and advanced signal processing.

# LEADERSHIP AND ACTIVITIES

# Phoenix Racing: Olin SAE MiniBaja Team

August 2012 – Present

# Team Captain - Design Lead, Former Drivetrain System Lead

- Drivetrain Subsystem Lead: worked with and oversaw a team to design and build the powertrain for three vehicles.
- All designs used CAD modeling in SolidWorks, and finite element analysis to meet FS standards.

# MECHANICAL ENGINEERING PROJECTS

# **Ornithopter**

January 2014 – May 2015

Worked with two mechanical engineers to design, build, and test a miniature flapping-wing flying mechanism.

#### Jarah: Olin Coworker Robot

January 2014 – May 2015

Designed the chassis system for an interactive coworker robot for possible later production.

#### **Robotic Guitar**

October 2013 – May 2015

Acted as the mechanical lead in the design and construction of a self-playing guitar system.

#### **CVT Testing and Tuning Platform**

October 2012 – Present

- Designed and built platform to simulate, test, and tune Continuously Variable Transmissions.
- Used MATLAB to simulate CVT shifting, allowing for more controlled tuning.

#### **SKILLS**

- Fabrication: Mill, lathe, drill press, band saws, CNC, Laser Cutter, Waterjet, 3d Printing
- Software: SolidWorks, AutoDesk Inventor, Arduino coding, Java, C, C++, HTML, Python, MATLAB, SWIG.
- Language: Conversant in Spanish

**Permanent**