**Dylan Saracco**

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**OBJECTIVE:** Seeking a position as a Mechanical Engineer beginning January 2017.

***EDUCATION***

*University of the Pacific,* Stockton, CA Expected Graduation: December 2016

**Master of Science in Engineering Science, Concentration in Mechanical Engineering Major GPA: 3.85**

Bachelor of Science, Mechanical Engineering **Cumulative GPA: 3.85**

***EXPERIENCE***

**Macintosh Product Design, Apple Inc., Cupertino, CA**  ***September 2015 - August 2016***

*Product Design Engineering Intern – Display Integration*

* Characterize the mechanical properties of an LCD panel by designing a fixture with the capability to apply a known deflection at various locations on a panel while also measuring the applied load. A CCD camera measures the change of the panel’s output as various loads are applied.
* Develop a test using pressure mapping technology to understand the mechanics of the body of a display. This knowledge is used to optimize the structure of the display.
* Perform failure analysis to uncover the root cause of system failures to determine what design changes can be implemented to either cure the failure, or mitigate the risk of such failure.
* Travel to Shanghai to work with vendors and manufacturers to implement changes in the design and assembly process in order to improve yield and product quality.

**Tridecs Corporation, Hayward, CA**  ***June 2015 - August 2015***

*Fixture Design Engineer*

* Design and machine a series of fixtures which the internal components of a DNA sequencing machine were mounted on in order to make each component easily accessible for testing and debugging.

**Housing and Greek life (University of the Pacific), Stockton, CA** ***August 2013 - May 2015***

*Resident Assistant*

* Create and host programs and activities in order to strengthen relationships and build community amongst residents.
* Mediate conflicts between residents.

***COURSEWORK***

* Vibrations
* Machine Design / Analysis II
* Heat Transfer
* Thermodynamics II
* Systems Analysis & Controls
* Intro to Mechatronics
* Polymer and Composite Materials
* Fluid Mechanics
* Material Science
* Instrumentation
* Mechanics of Materials
* Engineering Project Management
* Numerical Methods for Engr.
* Circuits
* Computer Aided Manufacturing
* Manufacturing Processes

***PROJECTS***

**Senior Project I/II - UAV Docking Station**

* Design and manufacture an octo-copter and a docking station that mechanically removes the battery from the octo-copter and replaces it with a fully charged battery. (1st place out of 11 teams)
* Machine numerous components using a CNC mill and a manual lathe.
* Program Arduino in C to control a linear actuator and servos on the docking station.

**Techniques in Research - Determining the Degree of Cross-linking of Polyethylene**

* Develop an experiment to determine if mechanical test methods can be used to determine the degree of cross-linking of polyethylene test samples
* Use a Material Testing System (MTS) to apply compressive and tensile loads to test samples under various environmental conditions; the data was post-processed and analyzed in MATLAB.

**Manufacturing Processes - Gyroscope**

* Manufacture a gyroscope using a variety of processes and machinery. Used a mill and a lathe to fabricate the primary components. The gyroscope is capable of remaining stable for 5.75 minutes. (1st place out of 8 teams)

***SKILLS***

**Manufacturing:** Mill, CNC Mill, Lathe, ESPRIT (CAM), Oxy-Acetylene welding, Laser Cutting, Soldering

**Testing Equipment:** Instron, Keyence, MTS, DMM, Oscilloscope, Function generator, Tekscan pressure mapping

**Software:** Siemens NX, SolidWorks, Inventor, MATLAB, LabVIEW, MSOffice, Visual Studio, Arduino IDE, Illustrator

**Computer Languages:** Basic understanding of Python, C/C++, C#, Bash, and VBA for Excel

***HOBBIES***

Running / Hiking / Ultimate Frisbee / Soccer / Golf

Tinkering with electronics

Reading (non-fiction)

***PROFESSIONAL AFFILIATIONS / AWARDS***

Theta Tau, Professional Engineering Fraternity

Tau Beta Pi, Engineering Honor Society

Phi Kappa Phi, Honor Society