Eloisa Baez Jones

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Education

University of Pennsylvania – School of Engineering and Applied Science **August 2013 – May 2017**

Candidate for B.S.E in Mechanical Engineering and Applied Mechanics - GPA: 3.31

Coursework in Mechanical Design and Manufacturing, Linear Algebra, Thermodynamics, Scientific Computing, Statics and Mechanics of Materials, Dynamics, C++, Quantum Physics of Materials, Differential Equations

Dreher High School **Class of 2013**

13 AP classes including BC Calculus, Physics, Biology, Computer Science

Mechanical Design and Fabrication Experience

Variable Pitch Quadcopter **March 2015**

Design and fabrication of variable pitch quadcopter
Single motor with reversible thrust for upside-down flight

Penn Electric Racing **January 2015 - Present**

Formula SAE Electric Racing team
Aid with machining of components and assembly for competition car

UPenn Battlebots **January 2015 - Present**

Machining of 3 pound titanium and aluminum battlebot using CNC and manual mills

Gamma -Type Stirling Engine **September 2014 – December 2014**

Designed and machined stirling engine, Components made of aluminum, steel, and brass. Ran at 1100 rpm.

World Championship FIRST Robotics Team **2011 - 2013**

Designed and built two 120 pound robots for FIRST (For Inspiration and Recognition of Science and Technology)
Competed at FIRST World Championship after 2012 Palmetto Regional win

Professional Experience

Teaching Assistant: Introduction to Scientific Computing **August 2014 – present**

Course serves as an introduction to MATLAB for engineering students
Create exams and quizzes, Hold office hours and recitation, and grade homework and exams.

ModLab Research Assistant **February 2014 – August 2014**

Reverse engineered a robotic gripper using Solidworks and 3D printing at a GRASP laboratory;
Awarded Research Experience for Undergraduates Grant from NSF

MicroSensors and MicroActuators Group Research Assistant **January 2015 – May 2015**

Programming TI – MSP430 microcontroller in C to read strain sensor data
Sensor and microcontroller will be mounted on fractured on broken bone during healing process

Skills

Fabrication: CNC milling, manual milling, manual turning, laser cutting, 3D printing

Software: Solidworks, ProtoTRAK, Microsoft Office Suite including Excel, Adobe Photoshop, Adobe Illustrator

Languages: MATLAB, Java, C, C++, HTML