

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: 3.37

Candidate for M.S.E. in Robotics

Coursework in *Mechanical Design and Manufacturing*, Linear Algebra, *Thermodynamics*, Scientific Computing, Statics and Strength of Materials, Dynamics, C++, Differential Equations, Fluids, Solids, *Design of Mechatronic Systems*, *Product Design*

Mechanical Design and Fabrication Experience

Penn Electric Racing – Formula SAE

January 2015 - Present

Design of pedal box

Aid with machining of components and assembly for competition car

Gamma -Type Stirling Engine

September 2014 – December 2014

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

Vertical Axis Wind Turbine

October 2015

Design, analysis, and fabrication of vertical axis wind turbine

Tested small scale Darrieus, Savonius, and hybrid type; built full scale Savonius type

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

Bossa Nova Robotics Mechanical Engineering Intern

May 2015 – August 2015

Design and fabrication of sensor mounts for production robots

Aided with assembly of three production robots

Machine Shop Assistant

August 2015 – Present

Help students learning to operate manual mills, manual lathes, and hybrid CNC mills

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

Skills

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

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

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