Bruno De Hoyos

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Education

Bachelor of Science, Mechanical Engineering, May 2016
Elements of Computing Certificate
The University of Texas at Austin
Overall GPA: 3.75/4.00

Relevant Courses

Dynamic Systems and Controls	Mechatronics	Probability and Statistics
Engineering Computational Methods	Heat Transfer	Fluid Mechanics
Elements of Data Visualization	Machine Elements	Engineering Finance

Experience

01/2015 – Present **Undergraduate Researcher, ReNeu Robotics Laboratory**
- Develop and modify existing software for controlling robotic devices
- Use SolidWorks to generate 3D models of mechanical components

09/2014 – 01/2015 **Undergraduate Research Assistant, Center for High Energy Density Science**
- Assembled laser configurations and aligned equipment on optical table
- Worked in student machine shop to produce parts and track fabrication process

05/2013 – 12/2013 **Student Technician, Applied Research Laboratories**
- Used MATLAB to perform data analysis and data processing of ocean database
- Redesigned MATLAB GUI's to improve ease of use and functionality of backend code
- Implemented functions to facilitate data processing over command line interface
- Developed test functions to ensure code produced correct results

08/2012 – 12/2012 **Team Leader, Reverse-Engineering of a Bicycle Bell**
- Utilized SolidWorks and a 3D printer to replicate functioning bell parts
- Studied 3D computer modeling, engineering drafting, and rapid prototyping
- Gained experience using milling machines and lathes

Projects

Built a hardware and software toolkit to help visually impaired people perceive their surroundings
Developed a self-stabilizing, Arduino-based robot to practice principles learned in class
Established personal website to host my academic projects at www.bdehoyos.me

Skills

Proficient in: MATLAB, Microsoft Office, Adobe Photoshop, CorelDraw
Familiar with: SolidWorks, LabVIEW, C/C++, Java, HTML, Git, Arduino, R
Strong interpersonal and communication skills
Fluent in Spanish, basic conversational French

Accomplishments

College Scholar, Spring 2014
University Honors, Fall 2012 – Present
Marvin Selig Endowed Presidential Scholarship in Mechanical Engineering
Equal Opportunity in Engineering (EOE) Academic Scholar, High Honor Roll 2012–2013

Organizations

UT IEEE Robotics and Automation Society (RAS)
- Competed in annual robotics competition within a team to create autonomous racing robot
- Learned the basics of robot building and control algorithms for tuning robot motion

Pi Sigma Pi Minority Academic Engineering Society (PSP)
- Photograph events and maintain photo website as Historian for 2014–2015 academic school year
- Attend outreach events to introduce Austin middle school students to STEM careers

Tau Beta Pi Engineering Honor Society (TBP)
- Participate in various local community service events throughout the semester