

Nicolas Leon

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Education

*Virginia Polytechnic Institute and State University
B.S Engineering Science and Mechanics, Graduating Fall 2015*

*Completed Coursework in Fluid Dynamics I and II, Dynamics I and II, Solid Mechanics,
Thermodynamics, Electrical Theory, Intermediate electrodynamics*

Project and Research Experience

Senior Capstone Project

Fall 2014 - Spring 2015

- With a team of five successfully optimized a 3D hydrofoil for a hydrokinetic turbine with respect to the coefficient of lift.
- Personally created our 3D blade in Autodesk Inventor
- Ran structural and computational fluid dynamics analysis in ANSYS

Undergraduate Research Design and Construction of Reduced Scale Railgun

Spring 2014

- Worked in multidisciplinary teams to research and design an electromagnetic launcher system for a Navy sponsored research project.
- This was part of NEEC (Naval Engineering Education Center) at Virginia Tech partnered with Naval Surface Warfare Center (NSWC) Dahlgren Division
- Used Autodesk Inventor to model instrumentation prototypes
- Acted as the team leader

Mechanics lab project: Automated plant watering system

Spring 2015

- Used Arduino and necessary mechanical components to build an automated system that would transfer water to plant soil based on soil data readings
- Also programmed LCD display to output data and to indicate when soil was being watered

Eagle Scout Community Service Project

Fall 2010

- Landscaped parking lot islands with mulch and fitted them various plants
 - Planned expenses, work days, and materials needed
 - Led fellow Boy Scouts and other volunteers in executing project
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Relevant Lab/Work skill

- **Computer:** Autodesk Inventor, MATLAB, Mathematica, C++, Microsoft Office, ANSYS, LabVIEW
 - **Lab:** Used strain gauges and Instron Machinery to complete material testing for their various properties, built and programmed Arduino controlled circuitry,
 - Fluent in Spanish
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Extra-curricular University Activity

- Member of End Alzheimer's club: assisted in set up and execution of fundraisers for Alzheimer's research
- Intramural indoor soccer and intramural flag football