Andrew Martin

andrew.m.martin@vanderbilt.edu
[redacted]

EDUCATION

Vanderbilt University, Nashville, TN
Bachelor of Engineering, Mechanical Engineering May 2016
Minor: History
Cumulative GPA: 3.867/4.000

Budapest University of Technology and Economics, Budapest, Hungary
Semester Abroad, Faculty of Mechanical Engineering Jan. – May 2014

HONORS AND AWARDS

Engineering Dean's List (6 semesters) Dec. 2012 – present
Lady Jean Tatum Honor Scholarship, Vanderbilt Engineering Scholarship May 2013 – present
Dyer Family Foundation Scholarship, Vanderbilt Engineering Scholarship Dec. 2012 – present
Spirit of Gold Marching Band Scholarship, Vanderbilt Scholarship Dec. 2012 – present

WORK EXPERIENCE

Product Development Intern, TE Connectivity, Winston-Salem, NC May – Aug. 2015

- Redesigned an existing connector mounting clip for a new John Deere sensor application, increasing the sales volume by about 200,000 units per year while also improving the clip's holding strength and vibration dampening performance
- Created spreadsheet templates to better interpret CMM inspection data on round surfaces of mechatronic sprayer module
- Completed and analyzed GD&T tolerance studies and interference studies to control the design of a new Ethernet header
- Developed and executed a sequence of compression measurements and heat-age tests to evaluate different seal materials

Mechanical Intern, Smith Seckman Reid, Inc., Nashville, TN June – Aug. 2014

- Performed extensive calculations of buildings' heating and cooling loads and ventilation needs per industry (ASHRAE) standards, so that HVAC systems could be sized and selected for part of the Notre Dame football stadium renovation
- Prepared final system plans and equipment schedules for issued drawing sets for the new Brooklyn Nets practice facility

RESEARCH AND CAMPUS ENGAGEMENT

Vanderbilt Aerospace Design Lab, Vanderbilt University, Nashville, TN Aug. 2015 – present
Structural Design Engineer for NASA Student Launch Challenge

- Integrated an in-situ rocket dynamical load monitoring system to evaluate the effects of high-g launch and deployment loads on structural health
- Studied composite manufacturing techniques and examined the strength of metal-composite bonds to fabricate our rocket

MagRide Undergraduate Research Project, Vanderbilt University, Nashville, TN Aug. 2015 – present

- Analyzed components and researched magnetic behavior to model, design, and build a full-scale magnetic levitation car
- Optimized lifter configuration to reduce the number of motors in the vehicle from four to two

Design for America, Vanderbilt University, Nashville, TN Sept. 2012 – present
Project Team Leader & Leadership Team Member

- Led six-member Sustainability Team for two years, completing projects involving the prototyping and testing of devices to save water in the shower, coordination with administration to creatively reduce the energy to heat and cool campus buildings, and comparisons of various methods to engage students and faculty in a campus composting program
- Developed a solution to decrease energy use in dorm bathrooms and wrote a winning application to receive $15,000 of funding from the Vanderbilt Green Fund to implement the solution

Vanderbilt University Spirit of Gold Marching Band and Basketball Band Aug. 2012 – present
Men's Ultimate Frisbee Club Team Sept. 2012 – present
Alternative Spring Break Mar. 2013

SKILLS

Software: Mastery: Bluebeam Revu, LabVIEW, Mathematica, MATLAB, Microsoft Office, PDMLink, PTC Creo Parametric (Pro/ENGINEER), Revit, Simulink, SpaceClaim, Trace 700
Software: Competency: Abaqus, ANSYS Mechanical, AutoCAD, Autodesk Moldflow, CSS, HTML, Python
Relevant courses: Creo Parametric Documentation and Detailing, Energetics Laboratory, Heat Transfer, Introduction to Robotics, Linear Algebra, Machine Analysis and Design, Manufacturing, Mechatronics, Polymer Materials Science