

ADAM D. SMITH

KNOXVILLE, TN

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(865) 282-5410

EDUCATION

Vanderbilt University – Nashville, TN

Master of Science in Mechanical Engineering

Fall 2020

GPA: 4.00/4.00

Bachelor of Engineering in Mechanical Engineering, Minor in Computer Science

May 2020

GPA: 3.79/4.00, Major GPA: 3.95/4.00, Dean's List all semesters

TECHNICAL SKILLS

CAD/FEA: Creo Parametric/Simulate, Autodesk Inventor and Fusion 360, Onshape, familiar with COMSOL Multiphysics

Programming/Data Analysis: MATLAB and Simulink, Python, C++; familiar with LabVIEW, Java, Glade Interface Designer, CloudCompare, Meshroom

Manufacturing: 3D composites printing, lathe, mill, grinder, bandsaw, extensive hand/power tool use, basic welding

PROFESSIONAL EXPERIENCE

Vanderbilt Aerospace Design Laboratory (VADL) – Nashville, TN

August 2018 – Present

Design Engineer

- Collaborate with championship-winning team to develop and build a high power rocket with a novel payload for the NASA University Student Launch Competition
- Design, fabricate, and test various structures and electromechanical systems to ensure a successful mission
- Characterize environmental conditions and aerodynamics of rocket to accurately model flight trajectory

Vanderbilt University – Nashville, TN

January – May 2019

Aerospace Propulsion Teaching Assistant

- Simulated rocket flight under multiple variables and optimize operating parameters of various air-breathing engines using analytical methods and iterative MATLAB schemes
- Provided academic assistance to students, grade class assignments, and present solutions to class

SL Tennessee – Clinton, TN

May – August 2018

Test Lab Engineering Intern, Lighting Division

- Designed and built a portable automotive headlamp testing device offering the functionality of 3 existing larger and stationary testing devices
 - Integrated and programmed a user-friendly touchscreen interface on the device for light activation sequences and current draw measurements
 - Tested and analyzed electrical, structural, and mechanical components of manufactured headlamp assemblies for production
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RESEARCH EXPERIENCE

Vanderbilt University School of Engineering – Nashville, TN

May – July 2019

Summer Research Fellow

- Developed a process to visualize vegetation health in three dimensions using near-field hyperspectral imaging
- Identified and minimized variables that complicate successful calibration of NDVI-based analysis

University of Tennessee, Knoxville – Knoxville, TN

June – August 2017

Student Research Assistant, Electromagnetics and RF Laboratory

- Created lab demonstrations to illustrate electromagnetic fields concepts to undergraduate students
- Gathered and analyzed data to reduce noise in testing environment for heart-rate-monitoring optical system and for experimental spiral antennae