

ROBINSON PHILIP RUTHERFORD

robinson.p.rutherford@vanderbilt.edu (479) 841-4711

Home: 733 N Canterbury Road
Fayetteville, AR 72701

School: PMB 351958
2301 Vanderbilt Place
Nashville, TN 27235

EDUCATION

VANDERBILT UNIVERSITY, Class of 2016

- **Major:** Bachelor of Engineering, Mechanical Engineering
- **Minors:** Engineering Management, Scientific Computing
- GPA: 3.8 / 4.0
- National Merit Finalist / Scholarship Recipient

WORK EXPERIENCE

- 2015** **SOUTHWESTERN ENERGY COMPANY, Completions Engineering Intern** Summer 2015
- Project: West Virginia Marcellus Proppant Optimization
 - Combined engineering techniques, single and multivariate data analysis, economics and field knowledge to make a recommendation on the proppant to be used by the West Virginia Division
 - Traveled to the field to see operations and participated in daily meetings and activities
- 2014** **SOUTHWESTERN ENERGY COMPANY, Drilling Engineering Intern** Summer 2014
- Projects: Drill Bit Performance Analysis; Upper & Lower Fayetteville Shale Intervals Cost Comparison; Criteria for Drillstring Agitator Use

PROJECTS

- 2015** **Arduino Controlled 2D Scanner and Printer** Spring 2015
- Designed, programmed, built, and tested an XY Cartesian robot that used a laser break beam sensor to scan a 3D object or 2D text and then print out the outline of the image on paper
- Modeling the Trajectory of a Golf Ball Using Computational Fluid Dynamics** Spring 2015
- Used COMSOL software and various turbulence models to model the drag and magnus forces on a golf ball at various spin rates and wind speeds
 - MATLAB code then applied these results to predict the trajectory of an average PGA Tour drive
- Thermal Conductivity Tester** Spring 2015
- Designed and constructed a device to find the thermal conductivity of a 2cm³ block of material
- 2014** **Technology Strategy: ABB's Hybrid HVDC Circuit Breaker** Spring 2014
- Created a report detailing a technology strategy including company assessment, macroeconomic and social environment, technological and competitive environments and nine other categories

LEADERSHIP

- 2015** **VANDERBILT AEROSPACE CLUB, Treasurer** Fall 2015 - Present
- Vanderbilt Aerospace Club competes in the NASA Student Launch Competition
 - Responsible for keeping track of all club expenses, fees, part orders and shipments
- VANDERBILT CLUB GOLF TEAM, Co-President** Fall 2013-Present
- Organize weekly local golf and National Collegiate Club Golf Association tournaments
- 2013** **LIGHTS ON THE LAWN EXECUTIVE COMMITTEE, Fundraising Chair** Fall 2013 – Spring 2015
- Lights on the Lawn is a charity concert organized by Vanderbilt Greek Life each year
 - Organized all fundraising activities for the Mary Parrish Center involving LOTL
- PHI GAMMA DELTA, Social Chair** Spring 2013-Fall 2014
- Worked with budgeting \$32,000 social fund
 - Organized Fraternity Formal, FIJI Islander, Fall Break Trip and all events throughout the year
- PHI GAMMA DELTA, Founder of Parent Donation Organization** Fall 2013
- Worked with Graduate Relations Chair and President so parents can support our chapter

SKILLS

COMPUTER SKILLS AND CODING LANGUAGES

- Python, MATLAB, Excel

SPANISH LANGUAGE SKILLS

- Six years of Spanish experience including I a month long study abroad program in Alicante, Spain