

Zachary Rose

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EDUCATION:

Tennessee Technological University, Cookeville, TN

Bachelor of Science in Mechanical Engineering

Relevant Coursework:

Thermal Design
Machine Design

Expected Graduation: Fall 2016

Institution GPA: 2.8

Air Conditioning Design
Steam Power Plants

EXPERIENCE:

U.S. DOE Industrial Assessment Center, Cookeville, TN

May 2015 – Current

Student Energy Analyst

- Perform assessments on manufacturing plants to identify energy-saving opportunities for compressed air, chilled water, steam, and HVAC systems.
- Research and select energy-efficient alternatives to current plant processes.
- Compare current electricity costs to proposed recommendations.
- Submit a comprehensive report to the plant detailing calculated savings, installation costs, and simple payback periods.

United Parcel Service, Knoxville, TN

Sept. 2011 – April 2015

Part Time Operations Supervisor

- Provided one-on-one training for new employees to ensure proper understanding of UPS work methods and safety standards.
- Documented the development of new employees to provide feedback based on individual strengths and areas for improvement.
- Assisted in other daily operations by managing employees as needed.

RELEVANT PROJECTS:

Heat and Mass Transfer across Cooling Tower Fill

- Create and simulate ANSYS Fluent model of cross flow fill with a team of seven peers.
- Modify model to obtain the optimized heat transfer across fill within given parameters.
- Submit finished project in the form of a formal report and oral presentation.

Adapted Mobility Scooter

- Worked with team members to modify an existing scooter for a young girl with special needs.
- Coordinated with professor for approval of final design and proposed budget.
- Built the accepted design utilizing machine shop operations.

ADDITIONAL INFORMATION:

Technical Skills

- Familiar with SOLIDWORKS, AutoCAD, Inventor, MATLAB, ANSYS Fluent, SSAT, PSAT, Carrier HAP, Word, Excel, and PowerPoint
- Possess the shop and safety skills needed to design, test, repair, and fabricate parts and tools.

Activities and Involvement

- Member of American Society of Mechanical Engineers (ASME)
- Member of Society of Automotive Engineers (SAE)
- Member of American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE)