

JOSEPH A. ROFFER

1 Amberwood Drive, Exeter, NH 03833 | (978) 806-5703 | jar052@bucknell.edu

EDUCATION

Bucknell University, Lewisburg, PA

Expected May 2022

Bachelor of Science - *Electrical Engineering* Concentration: *Sustainable Energy* Minor: *Management*

GPA: 3.64 Dean's List - 3 semesters

Clarkson University, *Freshman Transfer*

Presidents List - 2 semesters

SKILLS

Software: AutoCAD, Python, Matlab, Excel, Multisim, Ultiboard, Simulink, technical reports

Hardware: oscilloscopes, circuit design and analysis, PCB fabrication, soldering, MCUs, bench top power, multimeters

ENGINEERING EXPERIENCE

Raytheon Technologies - Power Department

Summer 2021

- Performed troubleshooting and root cause analysis
- Exposure to shop assembly and lab testing environments and procedures
- Experienced team engineering processes related to system integration
- Utilized oscilloscopes, multimeters and software to evaluate power electronic components such as motor controllers, relays, switches, resistors, and system wiring

ENGINEERING PROJECTS

Junior Engineering Design Pt. 1 - Bucknell "B" Printed Circuit Board Fabrication

Fall 2020

- Designed a PCB on Multisim and Ultiboard
- Operated the Pick n Place machine, overflow oven, and hand soldering tools to mount components

Junior Engineering Design Pt. 2 - Obsessive Compulsive Disorder Brain Model

Fall 2020

- Collaborated on a team of 3 people to construct an interactive OCD model
- Lead design of user interface
- Measured power specifications to attach a portable battery through soldering

Renewable Energy Scholars - Solar Picnic Table

2020

- Collaborated on a team of 3 people to build a table that houses a solar panel for charging devices on campus
- Reconstructed old batteries to build a new battery
- Installed inverters, batteries, battery management systems

RELEVANT COURSES

Engineering: Electrical Energy Conversion, Electromagnetics, Wireless System Design, Micro-Electronics, Digital Signals & Systems, Embedded Cyber Physical Systems, Probabilistic System & Data Analysis

Management: Sustainability Principles for Engineers, Managing for Sustainability, Organizational Behavior, Leadership, Bucknell Summer Management Institute

ACTIVITIES & LEADERSHIP

Player, **Rugby, Bucknell University**

August 2021 - Current

Mentor, **Garman Guides, Bucknell University**,

August 2021 - Current

Founder/President, **Active Minds Chapter, Bucknell University**,

February 2020 - Current

Member, **Renewable Energy Scholars, Bucknell University**,

September 2019 - Current

Board Member, **Institute of Electrical and Electronics Engineers**,

September 2019 - Current

Founder/ President, **Chess Club, Clarkson University**,

January 2019 - May 2019

HONORS & AFFILIATIONS

Member, **Mortar Board**,

April 2021 - Current

Member, **Tau Beta Pi**,

November 2020 - Current