

Benjamin Jakob Ellis

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Education

Clarkson University, Potsdam, NY

May 2024

- Bachelor of Science, **Aeronautical Engineering Major, Electrical Engineering Minor**
(Cumulative GPA: 4.0)

Nauset Regional High School, Eastham, MA

July 2020

Leadership/ Work Experience

Pre-Frosh Honors Summer Research, Smart Polymetric and Supramolecular Systems

Laboratory, Clarkson University

2020

- Ran simulations for a mechanoresponsive molecule being studied and drew conclusions for optimizing molecular structure and polymer attachment points.

MIT-Beaver Works Summer Institute, Nauset Regional High School

2019

Teaching Assistant (RACECAR Program)

- Taught a small group of high school students programming, calculus fundamentals, signal processing, and PID control systems.
- Over about 4 weeks each of these concepts were taught and applied to programming an autonomous vehicle which eventually competed on a racecourse at MIT.

Student, Team Leader (UAV-SAR Program)

2018

- Assembled a small team of rising high school juniors to compete in the MIT-BWSI summer program in the “Unmanned Aerial Vehicle: Synthetic Aperture Radar” (UAV-SAR) challenge.
- Worked with a small team to build a custom DJI S900 drone from scratch.
- Wrote software for signal processing from a radar imaging payload and for processing the data into a synthetic aperture radar image by meshing radar data with GPS.

Idle Times Bike Shop, Orleans, MA

2017-2019

Associate

- Provided customer service answering product questions and conducting transactions.
- Repaired and maintained bicycles for both customers and for the company’s rental fleet.

Activities and Awards

Clarkson University Honors Program, Member

2020-Present

Clarkson University Presidential Scholar

2020-Present

Heintzelman Cape Cod Scholars, Program Recipient

2020-2024

Best Team Collaboration (UAV-SAR), MIT-Beaver Works Summer Institute

2018

Skills

Coding in Python, MATLAB, Shell Scripts

Shop certified in welding, torch cutting, and basic fabrication/ machining techniques

Proficient in French