BROOKLYN WAKEFIELD

(401) 855-3202 | brooklynwakefield.com | LinkedIn | bwakefield@olin.edu

EDUCATION

Olin College of Engineering Needham, MA May 2025
Bachelors of Science in Computer Engineering *GPA: Available May 2022*
Recipient of four-year, 50% tuition merit scholarship

Notable Courses: Design nature, Modeling and Simulation of the Physical World, Software Design

Rogers High School Newport, RI June 2021
High Honors Graduate *GPA: 4.2*

EXPERIENCE

Olin Satellite + Spectrum Technology & Policy (OSSTP) Webmaster **Needham, MA 2021 - Present**
- Research project with around 25 undergraduates working with Professor Whitney Lohmeyer, among 29 research institutions, led by the University of Notre Dame, to receive a 5-year, $25 million grant from the NSF Spectrum Innovation Initiative for satellite research.
- Design of a new website design for OSSTP research, including researching new innovations in the aerospace industry to include in website newsfeed, Working to implement Python and MATLAB into website functions.

Website Development Independent Projects **Newport, RI 2017 - Present**
- Asked by head of technology department at Rogers High School to assist in redesigning website.
- Paid design and development of a website for local business.
- Coding and design of personal portfolios using HTML, JavasScript, and CSS.

Olin Design Build Fly Aerospace Sub-team **Needham, MA 2021 - Present**
- Project team run by undergraduate students that develop highly specialized electric RC aircraft for the American Institute of Aeronautics and Astronautics Design-Build-Fly competition.
- Running advanced processes in AVL to calculate the most efficient airfoil for our competition plane balancing stall factors and speed performance.

Naval Undersea Warfare Center (NUWC) UTAP Intern **Newport, RI 7/2019-8/2019**
- Studied alongside NUWC scientists and engineers in the undersea testing center.
- Worked with advanced technology such as underwater sonar, camera imagery and live video feed to discover how future naval prototypes can best study the ocean.
- Developed underwater ROV's to function at deep depths with high pressure. The fabrication process included the use of circuits and Raspberry Pi for control system and outer motors.

LifeSpan Medical Group - Virtual Skills for Rhode Island's Future Intern **Virtual 6/2020- 8/2020**
- Collaborated with staff at Lifespan partnered hospitals to come up with practical solutions to address hospital safety during the COVID-19 pandemic.
- As a member of the Marketing and Communications department developed weekly update videos and infographics for PrepareRI social media accounts.
- Worked with R&D department to create virtual renderings for COVID-19 safe hospital rooms using CAD, as well as a prototype patient visitation registration app.

Aquidneck Island Community Project **2019**
- Took on an independent project for an entire academic year to benefit the local community.
- Creation of a vest for dogs to wear that detects infrared motion, and when triggered, activates multiple rapidly flashing LEDs to scare away coyotes and keep smaller dogs safe - using Arduino Uno, and various electrical circuits. To address Aquidneck Island's coyote overpopulation problem.

AWARDS & ACHIEVEMENTS

Submersible ROV Project – International Competition **Washington, D.C. 2019**
- Built SeaPerch, a small submersible remotely operated vehicle
- Won 2nd place representing state of RI, as well as Senate Citation and Speaker of House Citation
- Placed 3rd for engineering notebook design competition; a record of all design decisions and calculations. Received Certificate of Recognition from Newport Public Schools.

SKILLS AND ABILITIES

- **Python, C++, HTML, JavaScript, CSS, SOLIDWORKS, and MATLAB.**
- **IC3 Certified** in Key Applications (All Microsoft Office Applications), Living Online (Cybersecurity), and Computing Fundamentals.
- **Green Shop trained:** drill press, bandsaw, belt Sander. **Knowledge of electrical circuits and computer hardware.**