Oxylus Energy
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Oxylus Energy

the **carbon-conversion** company

Software and Automation Engineer Intern, Summer 2025
New Haven, CT | Full Time | On-Site/Hybrid

About *Oxylus Energy*

Oxylus Energy is a public benefit corporation founded in 2023 with a mission to displace fossil fuels through the direct conversion of CO_2 into carbon-neutral fuels and chemicals. Oxylus is developing cutting edge CO_2 electrolysis technology for the direct production of green methanol, reducing the energy requirement and enabling both onsite fuel production and carbon conversion. This solution has the potential to provide an economic pathway to decarbonization for the hard-to-abate sectors of aviation, shipping, and petrochemicals which are responsible for ~11% of global GHG emissions.

Oxylus Energy is located in New Haven, CT and is supported by top climate technology funders including Toyota Ventures, Azolla Ventures, Earth Foundry, and Connecticut Innovations. Joining us now is an opportunity to play a fundamental role in the development of our team and technology so that we can bring our transformative solution to market.

Job Brief

The ***Software and Automation Engineer Intern*** will work with the Oxylus research and development team to design and implement automation that supports Oxylus Energy's CO_2 electrolyzer testing scale-up. The position involves both hardware support, such as automating electrochemical testing processes using Arduino controls, and software development, including data processing and analysis. This role directly reports to the CTO and/or a senior scientist.

This internship is a full-time, paid position for a duration of 10 weeks in Summer 2025. Exact start dates are flexible.

What You Will Do

- Design and improve human-machine interfaces (HMIs) and graphical user interfaces (GUIs) for electrochemical test stations.
- Develop software to support automated data processing and analysis.
- Communicate with the Oxylus R&D team to create optimal user interfaces for laboratory operations.
- Collaborate with industry, government, and academic partner organizations on joint projects, with possible visits to nearby facilities and plants.
- Prepare presentations for diverse stakeholders.

Who You Are

- Currently enrolled student pursuing a Bachelor's, Master's, or Ph.D. degree in computer science, mechatronics, statistics and data science, engineering, or a related field.
- Strong background in Python programming.
- Experience designing GUIs. Experience with Arduino is a plus.
- Strong problem solver and solution oriented. Able to problem solve when you are given the end goal but not the way to figure it out.
- Detail-oriented with strong organization skills.
- Excellent communication skills, both oral and written as well as technical writing.
- Highly motivated and milestone-driven.
- Strong commitment and adherence to laboratory safety.
- Reliable, action-oriented, hard-working, and a team player.

We are convinced that the distinct contributions of each person fuel our success. To ensure our products and culture remain inclusive of all viewpoints and experiences, we uphold a policy of non-discrimination regarding race, religion, national origin, gender identity or expression, sexual orientation, age, as well as marital, veteran, or disability status.