**3D Visualization for Engagement With Sustainable Forest Biomass Processes**

2022 MASBio Undergraduate Summer Research Opportunity

**Faculty:** Aidan Ackerman, ASLA

**Project Site:** Professor Ackerman’s lab (https://aidanackerman.com/landscape-visualization-lab), Department of Landscape Architecture, SUNY-ESF

**Project:** 3D Visualization for Engagement With Sustainable Forest Biomass Processes

**Brief Description:** Sustainable landscape management is often challenging to communicate to the public. These challenges exist for several reasons, including lack of familiarity with sustainable land management practices, negative perceptions of harvesting and tree removal, and the overall complexity of the practices and their involvement in intricate supply chains. This research proposes to address these communication and perception challenges through the creation of highly-realistic three-dimensional (3D) and virtual reality (VR) landscape visualizations. The specific focus of these immersive visualizations will be to show a MASBio trial site in Onondaga County as a virtual case study, visualizing its long-term management and contribution to environmental and economic growth. By creating a digital visualization of this trial site, public audiences will be able to engage with the project in a unique way that builds engagement, comprehension, and support for its sustainable landscape management practices.

The outcomes of this work will be helpful to the MASBio project as the project will help in communicating the benefits of forest biomass to the public, creating a toolkit for involvement and advocacy for these sustainable harvesting operations.

**Background Required:** Educational background in forestry, landscape architecture, or a related discipline, along with skill in 3D modeling and visualization. Knowledge of animation and video game design software is desired but not required.

**Additional Details**:

* All students are expected to participate in person at SUNY ESF in Syracuse, NY for the duration of the program (Monday May 23 – Friday July 29, 2022)
* The stipend for this summer research opportunity is $6,000.
* The program will include field trips to biomass/bioenergy partners and facilities in the region. Transportation will be provided for these activities.
* Housing is available for the 10 week period in the dorm at ESF at a cost of $1,000 (<https://www.esf.edu/welcome/campus/centennial.htm>)

**Application:**

Submit your resume, a statement of interest (maximum of one page), college transcripts (unofficial is acceptable) and two reference letters for review to: Dr. Timothy Volk, 306 Bray Hall SUNY ESF, Syracuse, NY 13210 or tavolk@esf.edu.