Enhancing Aquaculture Literacy and Diversity Through Virtual Reality: An Extension-Focused Approach

Mentor(s)
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Abstract
This project utilizes virtual reality (VR) and 360-degree video technologies to create immersive digital educational materials for aquaculture literacy, outreach, and Extension programming. Undergraduate students will collaborate with local shellfish farmers to produce virtual tours of the RWU Ferrycliffe Aquaculture Farm and diverse shellfish farming systems across Rhode Island. These materials will be incorporated into the RWU Initiative's Applied Shellfish Farming course (January–May annually), used in RWU Extension programming to train farmers on best practices, and shared with schools and community groups to engage a broader and more diverse audience. Participants will gain hands-on experience in VR media production and aquaculture outreach, while audiences will benefit from access to aquaculture knowledge without leaving their farms, schools, or homes. Results will be presented at Aquaculture America 2026 (February, Las Vegas) and other professional venues, demonstrating how digital media can improve education, promote diversity, and support Rhode Island's Blue Economy.

Project Objectives

1. Develop virtual tours showcasing the RWU Ferrycliffe Aquaculture Farm and a variety of shellfish farming systems across Rhode Island.

2. Train undergraduate students in 360-degree video capture, VR production, and science communication.

3. Disseminate digital materials to enhance aquaculture education, foster diversity in audience engagement, and support Extension activities.