Research and Extension Experience for Undergraduates
Modern Tools and Technologies for Food and Agriculture
https://engineering.uga.edu/reuu

Research Project: Utilizing vertical farms to produce plant-based biopharmaceuticals
Faculty Mentor: Dr. Rhuanito Ferrarezi, CAES, Department of Horticulture (ferrarezi@uga.edu)
Area of Expertise: Precision irrigation, plant nutrition, lighting, biopharmaceuticals, biofortificants, crop physiology and cropping systems for controlled environment agriculture.
Student Background: Biochemistry, Horticulture, Agronomy, Ag Engineering, and other related fields.
Laboratory Website: https://ferrarezilab.uga.edu

Dr. Ferrarezi is looking for REEU students with a background and interest in Biochemistry, Horticulture, Agronomy, and/or Ag Engineering to work on a summer project that will focus on utilizing vertical farms to produce plant-based biopharmaceuticals such as anti-cancer alkaloids (vinblastine and vincristine). REEU students will work with a lab technician and graduate students in Dr. Ferrarezi’s Controlled Environment Agriculture Laboratory conducting experimental research. Students will receive interdisciplinary exposure to a multitude of crop physiology and production-related research areas and will have the opportunity for professional development on the UGA campus. This interdisciplinary approach drives innovation in precision agriculture, specialty-crop horticulture and biopharmaceutical production, inspiring new avenues for scientific exploration, profitability and agricultural sustainability.