Summer 2025
Research and Extension Experience for Undergraduates

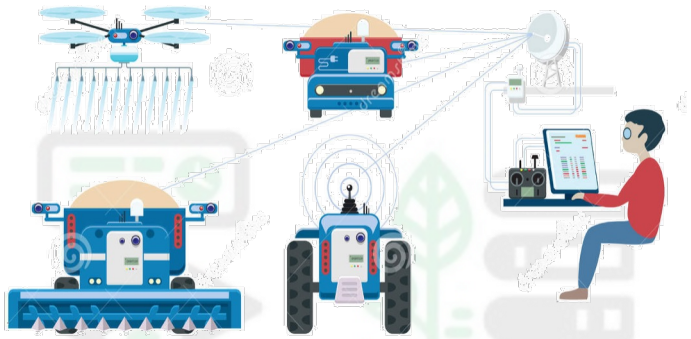
NIFA(USDA) REEU Site, College of Engineering, University of Georgia, Athens, GA.
https://engineering.uga.edu/reeu

Modern Tools and Technologies for Food & Agriculture Production

The summer REEU program is an excellent opportunity for undergraduate students to participate in research, extension and outreach projects that focus on innovative tools and modern technologies for agricultural and food production. Students will also get opportunities for professional skills development in communication, leadership, ethics, team work and organization.

Program Overview

- Participants perform research, or outreach projects under the mentorship of a professor at UGA.
- Participate in seminars, career counseling and professional development workshops.
- Students are matched with the professors based on research projects and interests.



Program Site and Locations

The program site is the University of Georgia, both in the main campus at Athens, and in the Griffin Campus. Athens is 75 miles northeast of Atlanta airport. Athens is a vibrant college town, known for its music and culture, and its warm summer weather. Griffin is located about 30 miles south of Atlanta airport.

Financial Support

- Stipend: $4000 total for the program period
- Housing: $1000 total housing allowance or free on-campus housing (for external participants)
- Meals: $750 total for the program period
- Travel : $750 total (for external participants)

Eligibility

- Sophomore or Junior in 4-year STEM degree
- Cumulative GPA > 3.0
- U.S. Citizen or U.S. Permanent Resident

Key Deadlines

Application Due: March 31, 2025
Notification Date: April 15, 2025
Program Dates: TBA (June 1 –July 31)

Student Background

Students majoring in the following disciplines are encouraged to apply : Engineering (Electrical, Computer, Chemical, Agricultural, Biological), Computer Science, Data Science, Agronomy, Chemistry, Microbiology, Molecular Biology, Virology, Biochemistry, Food Science.

Research Projects

Please review the table in the next page for a list of available research projects to choose.

Application

- A link to FULL APPLICATION can be found at: https://engineering.uga.edu/reeu.
- Full applications are due **March 31, 2025** and must include the following:
  - Transcript of STEM major (pdf upload)
  - Recent CV/resume (pdf upload)
  - 2 recommendation letters (pdf upload)
  - Statement of interest 400-500 words (pdf upload)
- Questions? Email: engr-reeu@uga.edu

UNIVERSITY OF GEORGIA

USDA NIFA
United States Department of Agriculture
National Institute of Food and Agriculture

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Available Research Projects

Research Supervisor & Department	Student Background and Degree Major	Research Project Title	Location
Dr. Guoyu Lu **Electrical & Computer Engineering**	Electrical Engineering, Computer Engineering	3D modeling and phenotyping of plants based on mobile phone images.	Athens Campus
Dr. Guoyu Lu **Electrical & Computer Engineering**	Electrical Engineering, Computer Engineering	UAV-based crop field modeling and yield prediction.	Athens Campus
Dr. Kyle Johnsen **Computer Engineering**	Computer Engineering, Computer Science	Augmented reality visualization of point cloud datasets.	Athens Campus
Dr. Jin Ye **Electrical Engineering**	Electrical Engineering, Computer Engineering	Renewable energy systems for controlled environment agriculture.	Athens Campus
Dr. WenZhan Song **Computer Engineering**	Computer Engineering, Computer Science	Build a sensor web for monitoring poultry house.	Athens Campus
Dr. Leonardo Bastos **Crop & Soil Science**	Agricultural Engineering, Agronomy, Computer Science, Data Science	Georgia cotton variety recommender: a producer-oriented dashboard online tool	Athens Campus
Dr. Leonardo Bastos **Crop & Soil Science**	Agricultural Engineering, Agronomy, Computer Science, Data Science	State-wide weather data interpolation for digital agriculture applications.	Athens Campus
Dr. Ramaraja Ramasamy **Chemical & Biological Engineering**	Microbiology, Biochemistry, Biological Engineering	Rapid Detection Technologies (Biosensors) for Food Pathogen Detection	Athens Campus
Dr. Rhuanito Ferrarezi **Horticulture**	Biochemistry, Horticulture, Agronomy, Ag Engineering, and other related fields	Utilizing vertical farms to produce plant-based biopharmaceuticals	Athens Campus
Dr. Rhuanito Ferrarezi **Horticulture**	Biochemistry, Horticulture, Agronomy, Ag Engineering, and other related fields	Enhancing rose propagation using LED lighting & sensor-based irrigation	Athens Campus
Dr. Rhuanito Ferrarezi **Horticulture**	Biochemistry, Horticulture, Agronomy, Ag Engineering, and other related fields	Designing & Building a high-tech small-scale vertical farm for residences	Athens Campus
Dr. Kenan Song **Agricultural & Mechanical Eng.**	Manufacturing or Agricultural Monitoring Systems	Developing 3D printed multi-model actuators for seeds distribution	Athens Campus
Dr. Anderson Alves **Animal and Dairy Science**	Animal Science, Data Science, Digital Tools, Programming	Using Data Science to Investigate Calf Vocalizations as a Welfare Indicator	Athens Campus
Dr. Anderson Alves **Animal and Dairy Science**	Animal Science, Data Science, Digital Tools, Programming	Computer Vision Systems for Automated Heat Stress Assessment in Dairy Cows	Athens Campus
Dr. Chris Kucha **Food Science and Technology**	Computer Science, Food Science, Chemical Engineering	Spectral Imaging Technology & Machine Learning for Food Quality Detection	Athens Campus
Dr. XQ Wang **Mechanical Engineering**	Mechanical Engineering, Physics, Agricultural Engineering, Food Sci.	Computational Mechanics of Blueberry for Better Prediction in Bruise	Athens Campus
Dr. Zhihang Song **Horticulture**	Agricultural Engineering, Computer Science, Horticulture	Designing an Automated Peanut Maturity Evaluation System	Athens Campus
Dr. Zhihang Song **Horticulture**	Agricultural Engineering, Computer Science, Horticulture	Software Development for the Analysis of Fruit Images with Machine Learning	Athens Campus
Dr. Francisco Diez-Gonzalez **Food Science and Technology**	Microbiology, Biochemistry, Food Science	Development of anti-microbial treatments to inhibit mold growth in food.	Griffin Campus
Dr. Malak Esseili **Food Science and Technology**	Food Science, Microbiology, Virology, Molecular Biology	Development of low-cost filtration systems for waterborne viruses.	Griffin Campus
Dr. Malak Esseili **Food Science and Technology**	Food Science, Microbiology, Virology, Molecular Biology	Identification of natural inhibitors for foodborne viruses.	Griffin Campus
Dr. Govindaraj Devkumar **Food Science and Technology**	Biology, Biochemistry, Microbiology, Plant Science, Food Science	Survey of peach packing houses for microbial contamination.	Griffin Campus