

Ph.D. Graduate Research Assistantship Position

AI-Powered Phenomics for Plant Breeding and Production

Department of Agricultural and Biological Engineering, University of Florida
UF IFAS Gulf Coast Research and Education Center, Wimauma, FL

Position Description

The Plant Phenomics Lab at the University of Florida's IFAS Gulf Coast Research and Education Center (GCREC), led by Dr. Xu (Kevin) Wang, invites applications for a Ph.D. Graduate Research Assistant to join our team starting **Spring 2027**. This position is supported by a USDA NIFA-funded project and focuses on AI-powered plant phenomics, including **plant digital twins, multimodal data fusion, and knowledge-aware prediction models**, to accelerate specialty crop breeding and production decision-making. The lab specializes in high-throughput plant phenotyping through smart sensing, computer vision, and predictive modeling across strawberry, tomato, and ornamental plants, combining field-deployed sensing systems with deep learning pipelines to extract actionable plant traits for breeders and growers. The position includes full support: competitive stipend, tuition coverage, and benefits.

Minimum Qualifications

- Bachelor's or Master's degree in Agricultural Engineering, Computer Science, Electrical and Computer Engineering, Mechanical Engineering, or a closely related engineering field.
- Minimum GPA of 3.0 for undergraduate and 3.25 for graduate coursework.
- For applicants whose native language is not English: TOEFL iBT overall score of 4.5+ with subscore minimums of 4.0 in all subsections (Reading, Listening, Speaking, Writing), or IELTS minimum score of 6.5.
- Strong motivation for independent, interdisciplinary research and willingness to work in both lab and field environments.

Preferred Qualifications

- Hands-on experience in deep learning and computer vision.
- Programming and data science skills.
- Experience with edge computing, sensing system integration, or robotics.
- Familiarity with remote sensing, multimodal data fusion, and crop modeling.
- Record of peer-reviewed publications.

About UF|IFAS ABE and GCREC

The University of Florida's Agricultural and Biological Engineering program is ranked **No. 6 nationally** for agricultural and biological engineering graduate programs by the 2026 U.S. News & World Report rankings. The Gulf Coast Research and Education Center, located in the Tampa Bay area, is a hub for specialty crop research and is home to the newly established **Center for Applied Artificial Intelligence in Agriculture**, offering students access to cutting-edge sensing, computing, and field research infrastructure.

Application Process

Interested applicants should email Dr. Xu Wang (xuwang1@ufl.edu) with a single PDF including:

1. Curriculum Vitae
2. Statement of research interests (maximum 2 pages), describing research background and alignment with the lab's research program
3. Academic transcripts (unofficial acceptable)
4. Contact information for three references

Applications will be reviewed on a rolling basis. To be considered for Spring 2027 admission, applicants should also follow UF IFAS Department of Agricultural and Biological Engineering Spring admission process (priority deadline: **September 1, 2026**, case-by-case basis, requires faculty nomination).