IFAS Gulf Coast Research
and Education Center
14625 CR 672
Wimauma, FL 33598
813-419-6578
https://gcrec.ifas.ufl.edu/

POSITION ANNOUNCEMENT

Title: **Assistant Professor: Phenomics for Plant Breeding Applications**

Location: **Gulf Coast Research and Education Center**
University of Florida
Institute of Food and Agricultural Sciences (IFAS)
Wimauma, Florida

Salary: **Commensurate with Qualifications and Experience**

Review Date: **For full consideration, candidates should apply and submit additional materials by April 15, 2021. The position will remain open until a viable applicant pool is determined.**

Apply Online: **https://facultyjobs.hr.ufl.edu/posting/83604**

Duties and Responsibilities

The Institute of Food and Agricultural Sciences is committed to creating an environment that affirms diversity across a variety of dimensions, including ability, class, ethnicity/race, gender identity and expression. We particularly welcome applicants who can contribute to such an environment through their scholarship, teaching, mentoring, and professional service. We strongly encourage historically underrepresented groups to apply.

If an accommodation due to a disability is needed to apply for this position, please call 352-392-2477 or the Florida Relay System at 800-955-8771 (TDD) or visit Accessibility at UF .

This is a 12-month tenure-accruing position that will be 80%research (Florida Agricultural Experiment Station) and 20% extension (Florida Cooperative Extension Service), available in the Gulf Coast Research and Education Center, Institute of Food and Agricultural Sciences, at the University of Florida. This assignment may change in accordance with the needs of the unit. Tenure will accrue in the Department of Agricultural and Biological Engineering.

This position is one of a cohort of three positions that will advance the application of artificial intelligence (AI) in plant breeding. The positions will collaborate heavily with one another and with more than twenty UF/IFAS breeding programs that genetically improve more than 50 crop species. This cohort is made possible by the UF AI Initiative and a gift from NVIDIA that is establishing the most powerful supercomputer in U.S. Higher Education at the University of Florida. Briefly, these three

positions are: 1) A senior-level faculty that will provide visionary leadership in Prediction-based Plant Breeding (Horticultural Sciences Department, Main Campus, 70% Research and 30% Teaching); 2) An assistant-professor position in data science that will focus on Integrated Multi-omics Analysis (Agronomy Department, Main Campus, 70% Research and 30% Teaching); and 3) An assistant professor position in Phenomics for Plant Breeding Applications (Agricultural and Biological Engineering Department, stationed at the Gulf Coast Research and Education Center, 80% Research and 20% Teaching). These faculty members will have unique opportunities in transdisciplinary, collaborative projects and partnerships with faculty in the UF/IFAS Plant Breeders Working Group, a newly formed interdisciplinary Plant Breeding Graduate Program, and other programs at UF and beyond. This position is also intended to collaborate closely with a fourth new position, also to be stationed at GCREC with a tenure home in ABE, that will focus on robotics and machine vision. These two positions at GCREC will form a new hub for precision agriculture that will develop novel AI methodologies for different areas of application (i.e., mechanical harvesting and phenomics in plant breeding).

The successful candidate will develop a nationally and internationally recognized, externally funded research program focused on phenomics applications in plant breeding using AI. The acquisition of images and other data from sensors is becoming commonplace in precision agriculture, and the use of such data in plant breeding is accelerating. The main challenge is no longer acquiring data, but extracting useful information from this data in an automated fashion and making it available and useful to breeders. Therefore, in order to maximize the potential of sensor-based phenotyping in plant genetic improvement, the extraction and analysis of information from images and other sensor networks must be custom-designed for each crop and context. The use of artificial intelligence (AI) modeling will be integral to this process. The candidate is expected to actively collaborate with UF/IFAS plant breeding programs to optimize crop-specific phenotyping by maximizing automated data capture, processing and utilization. A tenure home in Agricultural and Biological Engineering is intended to maximize departmental and cross-college interactions, while the location at the Gulf Coast Research and Education Center will maximize statewide impact across more than twenty IFAS plant breeding programs.

The faculty member will participate actively in graduate education by chairing graduate committees, serving on graduate committees, supervising thesis and dissertation research, supervising undergraduate research, and publishing the results with their graduate students. The faculty member will seek contract and grant funding actively to support their program. Faculty are encouraged to participate in professional development activities related to teaching and advising and may teach courses and seminars. The faculty member will engage in Extension activities in their program area. Because of the IFAS land-grant mission, all faculty are expected to be supportive of and engaged in all three mission areas—Research, Teaching and Extension—regardless of the assignment split.

Qualifications

Required:

A doctorate (foreign equivalent acceptable) in Engineering, Computer Science, or a closely related discipline is required. A doctorate in a plant science or interdisciplinary program with extensive training in the area of phenomics may also be sufficient. Candidates should have demonstrated skills in verbal and written communication, interpersonal relationships, and procurement of extramural funding. Candidates must be supportive of the mission of the Land-Grant system. Candidates must also have a commitment to IFAS core values of excellence, diversity, global involvement, and accountability.

Preferred:
Postdoctoral experience in plant breeding and/or a multi-disciplinary program in the area of phenomics is desirable. Demonstrated ability to collaborate effectively with other researchers and to translate basic discovery to application is highly desirable.

Background Information

The Gulf Coast Research and Education Center (http://gcrec.ifas.ufl.edu/) has diverse research, extension and teaching programs with 20 faculty members located at Balm (mailing address Wimauma – 35 minutes drive from downtown Tampa) and the Plant City teaching program, with specialization in agricultural education and communications, economics, geomatics, horticulture, pest management, plant breeding, and resource management. GCREC is a modern research and education facility that includes offices and laboratories, 15 greenhouses, approximately 500 acres of field operations, and housing for up to 16 resident graduate students.

The Agricultural and Biological Engineering Department is a unit in the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida that has diverse teaching, research and extension education programs. The Department is comprised of 32 faculty members located on the Gainesville campus, 5 faculty located across the state at research and education centers, and 20 support personnel (see website http://abe.ufl.edu), and consistently ranks in the top 5 Agricultural and Biological Engineering programs nationwide. Instilling excellence in research, leadership, innovation, and entrepreneurship are ABE's highest priorities. At ABE, the candidate will join a dynamic, cross-disciplinary group of researchers, and will enjoy broad opportunities for collaborations with existing teams.

The University of Florida (http://www.ufl.edu) is a Land-Grant, Sea-Grant, and Space-Grant institution, encompassing virtually all academic and professional disciplines, with an enrollment of more than 56,000 students. UF is a member of The Association of American Universities. The Institute of Food and Agricultural Sciences (http://ifas.ufl.edu) includes the College of Agricultural and Life Sciences (http://cals.ufl.edu), the Florida Agricultural Experiment Station (http://research.ifas.ufl.edu), the Florida Cooperative Extension Service (http://extension.ifas.ufl.edu), the College of Veterinary Medicine (http://www.vetmed.ufl.edu), the Florida Sea Grant program (http://www.flseagrant.org/), and encompasses 16 on-campus academic departments and schools, 12 Research and Educational Centers (REC) located throughout the state, 6 Research sites/demonstration units administered by RECs or academic departments, and Florida Cooperative Extension Service offices in all 67 counties (counties operate and maintain). The School of Natural Resources and Environment is an interdisciplinary unit housed in IFAS and managed by several colleges on campus. UF/IFAS employs nearly 4,500 people, which includes approximately 990 salaried faculty and 1,400 permanent support personnel located in Gainesville and throughout the state. IFAS, one of the nation's largest agricultural and natural resources research and education organizations, is administered by a Senior Vice President and four deans: the Dean of the College of Agricultural and Life Sciences, the Dean for Extension and Director of the Florida Cooperative Extension Service, the Dean for Research and Director of the Florida Agricultural Experiment Station, and the Dean for the College of Veterinary Medicine. UF/IFAS also engages in cooperative work with Florida A&M University in Tallahassee.

Employment Conditions
This position will be filled as soon as an acceptable applicant is available. Compensation is commensurate with the education, experience, and qualifications of the selected applicant.

Nominations
Nominations are welcome. Nominations need to include the complete name and address of the nominee. This information should be sent to:

Dr. Vance M. Whitaker
Chair, Search and Screen Committee
University of Florida
IFAS Gulf Coast Research and Education Center
14625 CR 672
Wimauma, FL 33598

Telephone: 813-419-6608
Electronic Mail: vwhitaker@ufl.edu

Application Information
Individuals wishing to apply should go online to https://facultyjobs.hr.ufl.edu/posting/83604 and submit:

- Cover letter that states applicant's interest in the position and qualifications relative to the credentials listed above
- Curriculum vitae
- Contact information (including email addresses) for five individuals willing to write letters of recommendation

Selected candidate will be required to provide an official transcript to the hiring department upon hire. A transcript will not be considered "official" if a designation of "Issued to Student" is visible. Degrees earned from an education institution outside of the United States are required to be evaluated by a professional credentialing service provider approved by National Association of Credential Evaluation Services (NACES).

Hiring is contingent upon eligibility to work in the US. The University of Florida is a public institution and subject to all requirements under Florida Sunshine and Public Record laws.

The University of Florida is an Equal Opportunity Institution dedicated to building a broadly diverse and inclusive faculty and staff. The University and greater Gainesville community enjoy a diversity of cultural events, restaurants, year-round outdoor recreational activities, and social opportunities.