

Postdoctoral Position in High Throughput Plant Physiology Phenotyping

A postdoctoral associate position is available to work at the intersection of high-throughput plant phenotyping and plant physiology in the Department of Plant Biology at the University of Illinois and will be based in the Institute for Genomic Biology. The ideal candidate will have expertise in remote sensing, image processing, deep learning, statistics and/or micrometeorological techniques.

The position is part of an ARPA-E funded project titled "TERRA Mobile Energy-Crop Phenotyping Platform (MEPP)" which will develop a low-cost, tactical, semi-autonomous, ground-based vehicle that will rapidly phenotype key physiological traits. The TERRA-MEPP project will incorporate multiple sensors to collect detailed and precise field data at an unprecedented scale that will then be analyzed using high-throughput analytical strategies to determine the genetic basis of these traits. The project is a partnership between University of Illinois at Urbana-Champaign, Cornell University and Signetron inc. The position will involve close collaboration with a dynamic team of engineers, computer scientists, statistical geneticists, and plant physiologists.

The job duties and responsibilities of this position will be:

- to computationally process collected images along with geospatial information and work with collaborators on the extraction of key physiological phenotypic variables
- to research in the collection and processing of geospatial and image data, statistical dissection, prediction and validation of physiological phenotypes.

Required knowledge skills and abilities:

- Ph.D. in remote sensing, statistics, micrometeorology, or related discipline with a strong background in statistical methods
- Programming and image analysis skills
- Working knowledge of remote sensing and geospatial skills
- Excellent interpersonal and communication skills with an established publication record.

Review of applications will begin immediately and applications will be accepted until the position is filled. Please send cover letter, C.V., and the names of three references to Melinda Laborg (laborg@illinois.edu). Questions regarding the position can be sent to Carl Bernacchi (bernacch@illinois.edu).