

Postdoctoral Research Associate on proximal/remote sensing-based crop phenotyping and modeling

Summary

The Environmental Plant Physiology Lab at the **University of Illinois Urbana Champaign (UIUC)** is recruiting a Postdoctoral Research Associate (full-time, renewable annually based on performance) to work on high-throughput crop phenotyping and modeling using proximal/remote sensing techniques. This position is funded by an international research project ([RIPE](#)) that seeks to improve crop productivity. The Postdoctoral Research Associate will be jointly advised by Prof. Carl Bernacchi at UIUC/USDA-ARS and Prof. Peng Fu at Harrisburg University. The selected candidate will also have opportunities to work/collaborate with quite a diverse cohort of scientists in backgrounds such as plant physiology, remote sensing, process-based crop modeling, and cloud computing.

Specific responsibilities of this position include: developing and implementing data analytic pipelines to process proximal and/or remote sensing data (hyper-/multi-spectral, LiDAR, and thermal); building statistical and/or machine learning based predictive models to quantify plants traits, such as photosynthetic traits, evapotranspiration, water use efficiency, as associated with crop photosynthesis; integrating/fusing various sensor data for understanding crop yield performance; preparing peer-reviewed publications and project reports; and disseminating research at professional meetings. The selected candidate will be expected to work independently and as a team member to accomplish the research objectives.

Qualifications: The ideal candidate will have a Ph.D. in Remote Sensing/GIS, Agronomy, Plant Biology, Agricultural and Biological Engineering, and/or a related discipline from an accredited institution. Strong background in statistics, quantitative skills, and proficiency in programming languages such as Python, R, and MATLAB would be preferred. The position also requires excellent verbal and written communication skills and a track record of peer-reviewed publications.

The position is open until filled. Salary is competitive and commensurate with experience in relevant research.

Required documents for application: To ensure full consideration, qualified candidates must submit a cover letter, CV, and contact information for three references via email to Dr. Carl Bernacchi (bernacch@illinois.edu). All requested information must be submitted for your application to be considered. Incomplete application will not be reviewed. For further information related to this position, please do not hesitate to contact.

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