1/2 time Research Assistants **NEEDED**

We are looking for half-time research assistants to assist with IoT hardware, deployments, and related projects. This position will work with other faculty, staff, and graduate students to design, fabricate, install, and maintain IoT sensor and edge computing systems in research testbeds at Purdue University farms (ACRE - Agronomy Center for Research and Education, ASREC - Animal Science Research and Education Center, PACs - Purdue Ag Centers) and other sites.

Examples of typical systems include weather stations, soil moisture and solar radiation sensors, tractor/vehicle monitoring (Controller Area Network - CAN bus), edge computing devices, Zigbee/LoRa/TV Whitespaces/WiFi/cellular connectivity, cloud/infrastructure backends. There will be occasional travel to Purdue University farms for installation and maintenance tasks, as well as interaction with farm equipment, employees, and researchers. We are looking for a mechanical, electrical, computer, agricultural and biological, or similar engineering or technology student with interests in agricultural processes and operations. There is an opportunity to include data science (analytics), but the emphasis here is the data pipeline (data engineering).

The most desirable applicant will have background in some of the following (and desire to learn more about the rest)

Agriculture and agricultural practices
Embedded devices and their programming
Networking (LoRA, WiFi, and cellular)
Server side programming (Python, Rust, C/C++, etc.)
Linux
Streaming pipelines (Apache Kafka, Spark, etc.)
Enclosure design and sensor mounting for challenging environments
Electronics and electronic design
Mobile app / web app development

Interested students should send a resume or CV with a simple letter of application/interest to **Dennis Buckmaster**, Professor of Agricultural and Biological Engineering and Dean's Fellow for Digital Agriculture using **dbuckmas@purdue.edu**.

Also provide contact information for 3 references.

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