Research Specialist I (Applications Developer)

highereedjobs.com/search/details.cfm





Job Title

Research Specialist I (Applications Developer)

Agency

Prairie View A&M University

Department

Adloc Cooperative Agriculture And Research Center

Proposed Minimum Salary

Commensurate

Job Location

Prairie View, Texas

Job Type

Staff

Job Description

This position will plan, design, develop, and maintain applications and tools that advance NRES research and public engagement. The specialist will support interdisciplinary projects on water risk, weather extremes, precision agriculture, and natural resources by creating and maintaining high-quality data pipelines, reproducible analyses, and decision-support tools. The role includes maintaining existing NRES applications (such as IrrigWise, IrrigWise-PRISM, WeatherAndSoil, and IWET), developing new web-based tools, integrating various datasets (including sensor and remote sensing data), and applying AI and advanced analytics. The incumbent will collaborate closely with system members and stakeholders to deliver functional, user-friendly, and innovative solutions that support the mission of CAFNR and NRES.

This position is funded by restricted funds or a grant. Continued employment is contingent upon the renewal of restricted or grant funds.

The salary is determined in accordance with the University's compensation structure and will be commensurate with the candidates' education and experience, within the assigned salary range for this position.

Responsibilities:

Application Development and Maintenance

- Maintain, enhance, and troubleshoot NRES-developed applications (e.g., IrrigWise, IrrigWise-PRISM, WeatherAndSoil, IWET) to ensure continued functionality, usability, and performance.
- Design and develop new applications and tools for NRES-related data processing, visualization, and management.

Data Integration and Advanced Analytics

- Integrate data from various sources and databases (e.g., environmental sensors, weather/climate data, remote sensing, research datasets).

- Apply AI and advanced analytics techniques, including image analytics (classification, object detection, vegetation indices) and geospatial analysis (GIS), to support NRES research and decision-making.

Sensor, Remote Sensing, and Field/Lab Support

- Deploy and manage sensors in laboratory and field experiments (e.g., rain/flow, soil moisture, water quality sensors).
- Support UAV flights, GNSS/RTK use, and ground-truth sampling to generate high-quality datasets for NRES projects.

User Support, Documentation, and Training

- Develop user support resources, including user manuals, guides, and in-application help content.
- Provide training, troubleshooting, and technical support to faculty, staff, students, and external partners using NRES applications and tools.

Other Duties as Assigned

Provide training, troubleshooting, and technical support to faculty, staff, students, and external partners using NRES applications and tools. Performs other duties as assigned.

Required Education and Experience:

- Minimum of a bachelor's degree in Computer Science, Information Technology, - Management Information Systems, Computer Engineering, Informatics, or a closely related field.
- Four or more years of programming experience with solid knowledge of current programming languages and methodologies.

Required Knowledge, Skills and Abilities:

- Strong analytical and critical thinking skills, with demonstrated ability to solve complex technical problems and work independently as well as in teams.
- Proficiency in one or more of the following programming languages: C, C++, JavaScript, Visual .NET, Java, R, Python.
- Strong background in working with large datasets and data-intensive applications.
- Familiarity with multiple operating systems and platforms, including Windows, Linux, and Mac environments.
- Effective oral and written communication skills and the ability to collaborate with interdisciplinary research teams and non-technical stakeholders.

Preferred Qualifications:

- Experience working in a higher education or research environment.
- Experience with machine learning, web applications, and tool development, particularly in environmental, agricultural, or natural resources contexts.

- Experience designing and implementing workflows for environmental data analytics (Python/R), remote sensing (UAV/satellite), and machine learning for image classification/segmentation.
- Experience installing and maintaining environmental sensors (rain/flow, soil moisture, water quality), conducting UAV flights, utilizing GNSS/RTK, and performing ground-truth sampling with QA/QC.
- Strong understanding of software development processes (version control, testing, documentation, deployment).
- Familiarity with emerging technologies, including AI, big data, and automation, and their applications in research and decision-support tools.
- Knowledge of systems architecture, network security, cloud computing, and data governance as they relate to research data and web applications.
- Ability to design and implement robust workflows and pipelines for environmental and geospatial data analytics and visualization.

Other Requirements:

- Ability and willingness to work in laboratory and outdoor field environments (heat, humidity, uneven terrain) as needed for sensor deployment, data collection, and UAV operations.
- Ability to travel to on-campus and off-campus research and field sites, which may occasionally require early morning, evening, or weekend work aligned with field and data collection schedules.
- Valid driver's license (or ability to obtain) and eligibility to operate university vehicles, in accordance with university policy.
- Willingness to obtain and maintain any required certifications for operating UAVs/remote sensing platforms and to follow all university and regulatory safety protocols.
- Ability to lift moderately heavy objects.
- Ability to exert heavy force.
- Work beyond normal business hours and/or work on weekends.

Job Posting Close Date:

01/19/2026

Required Attachments:

Please attach all required documents listed below in the attachment box labeled as either "Resume/CV or Resume/Cover Letter" on the application. Multiple attachments may be included in the "Resume/CV" or Resume/Cover Letter" attachment box. Any additional attachments provided outside of the required documents listed below are considered optional.

Resume or Curriculum Vitae

Cover Letter

Application Submission Guidelines:

All applicants are required to apply via our Career Site on or before the closing date indicated on the job posting. Applicant inquiries received via email and websites such as Indeed, HigherEdJobs, etc. will not be considered unless the individual has applied to the available position via the PVAMU Career site.

The required documents listed in the above "Required Attachments" section must be attached to the application prior to the job closing date indicated to ensure full consideration for the application submitted. Please contact the Office of Human Resource on or before the closing date indicated above at 936-261-1730 or jobs@pvamu.edu should you need assistance with the online application process.

Background Check Requirements:

All positions are security-sensitive. Applicants are subject to a criminal history investigation, and employment is contingent upon the institution's verification of credentials and/or other information required by the institution's procedures, including the completion of the criminal history check.

Equal Opportunity/Veterans/Disability Employer.
© 2026 HigherEdJobs. U.S. Patent 8,548,928