

**Project Manager, IT Developer, and Project Coordinator for a USDA NIFA Project Entitled “Improving Agricultural Water Use and Nutrient Management to Sustain Food and Energy Crops Production in the Corn Belt”**

*Earth System Science Interdisciplinary Center  
University of Maryland College Park*

We are seeking qualified applicants for three full-time research faculty positions to support the finance, communication, extension, education, data sharing, and management of a new \$10M project funded by the United States Department of Agriculture (USDA)/National Institute of Food and Agriculture (NIFA). The project’s five-year goal is to develop a predictive decision support Dashboard for Agricultural Water use and Nutrient management (DAWN) to sustain food and energy crop production in the Corn Belt. The research faculty staff will support the Project Director (PD), Professor Xin-Zhong Liang, to manage project execution in integrating the research, extension and education activities among an interdisciplinary team in the University of Maryland and six partner institutions. For all three positions, salary is commensurate with experience and University benefits will be included. Their key responsibilities include:

1. The *Project Manager* will: (a) assist project budget planning details and balance; (b) develop internal and external communication strategy, including the development of website content, the use of social media platforms and outreach to the media; (c) monitor project progress across all collaborative institutions; (d) organize team-wide DAWN system development (including science models, decision support tools and information delivery), knowledge transfer (i.e. extension to agricultural stakeholders), and experiential training activities; (e) build external partnerships; (f) manage the research faculty staff to provide effective support to all activities operated by the project management team; (g) organize all relevant information and assisting the project management team for the completion and delivery of the annual progress report to the USDA NIFA program manager.
2. The *IT Developer* will be in charge of all software engineering tasks: (a) developing the decision support system (DSS) tools and information delivery system (IDS) web service capable of machine learning; (b) running system forecasts; (c) maintaining the project database and the research website; (d) coordinating with the IT support persons of the partner institutions in developing the interfaces among the coupled modeling system, the progressive database, the DSS models, the DSS tools, the IDS web service, and the users; (e) updating the DAWN data management plan and ensuring effective data sharing among the science team and stakeholders.
3. The *Project Coordinator* will (a) monitor and track due dates and anticipated outcomes; (b) organize program meetings and conferences, including developing agenda and meeting material as well as taking and summarizing the minutes; (c) support the undergraduate internship application process and maintain the records of graduate/undergraduate student and intern activities; (d) compile and synthesize all materials for the semi-annual and annual reports and internal and external reviews; (e) coordinate workflow of non-exempt staff and student employees, and ensure adherence to campus and sponsor procedures and policies.

**Qualifications:**

Applicants for the *Project Manager* position must hold a degree, M.S. or Ph.D. preferred, in atmospheric, hydrologic, agricultural, climate or related sciences, with at least 5 years of relevant experience in an active research environment. Applicants should possess strong management and communication skills and demonstrated experience with the use of social media tools for public engagement and outreach is strongly preferred. Excellent spoken and written English is required.

Applicants for the *IT Developer* position should hold a bachelor's or master's degree in computer science. They must have experience and skill in scientific and web programming, data management and visualization, such as F90, C, Python, JSON, PHP, jQuery, MySQL, Apache, Scikit-Learn and other machine learning tools on HPC or Cloud-based platforms.

Applicants for the *Project Coordinator* position should have strong administrative organizing and communication skills. Applicants should be skillful in the use of Microsoft Office and Adobe tools, as well as project management and other online or in-person conferencing software. They must be able to maintain effective communication with the entire project team (investigators and students) as well as stakeholders to promote broad engagement and outreach. Prior experience managing research projects is preferred. Excellent spoken and written English is required.

**To apply:**

Interested applicants should submit a cover letter, CV, and contact information for three references to Professor Xin-Zhong Liang at [xliang@umd.edu](mailto:xliang@umd.edu). These positions are available immediately, and applications will be reviewed on a rolling basis until the positions are filled.

*The University of Maryland, College Park, an equal opportunity/affirmative action employer, complies with all applicable federal and state laws and regulations regarding nondiscrimination and affirmative action; all qualified applicants will receive consideration for employment. The University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, national origin, physical or mental disability, protected veteran status, age, gender identity or expression, sexual orientation, creed, marital status, political affiliation, personal appearance, or on the basis of rights secured by the First Amendment, in all aspects of employment, educational programs and activities, and admissions.*