

Interested in learning and gaining valuable interdisciplinary research experiences, from data science, computer software system development to modeling in ecohydrology and water related fields through your Ph.D. study? Please apply for this Ph.D. position in the civil & environmental engineering at the University of Pittsburgh.

We are recruiting a self-motivated Ph.D. student for an NSF funded CyberWater project with a start date of fall 2021 or summer 2021. Prospective students would work with Professor Xu Liang (email: [xuliang@pitt.edu](mailto:xuliang@pitt.edu)) at the University of Pittsburgh. This Ph.D. research position (Graduate Research Assistantship) will include a competitive stipend, health insurance, and tuition waiver.

### **Project Description:**

The CyberWater research project aims at addressing a cyberinfrastructure (CI) challenge of the complex model and diverse data integration for scientists from multiple disciplines to assess and evaluate model interactions and outcomes, and, ultimately to use these integrated models to test comprehensive hypotheses and alternate process representations. This project will develop an open and sustainable modeling framework software in CI, which will enable an easy and incremental integration of diverse data sources and models for knowledge discovery and interdisciplinary team-work. The student will have an opportunity to work with diverse project teams from multiple universities/institutions with experts from computer science, software engineering, high performance computing, to hydrology and atmospheric science, and an opportunity to engage in and contribute to the project's outreach activities.

### **Candidate Qualifications/Requirements:**

- A degree in one or more of the following fields: computer science, data science, software engineering, civil and environmental engineering, applied mathematics, applied physics, or statistics and have a strong foundational background in ecohydrology, water resources, and/or climate science;
- Proficient coding skills in at least Python or C, additional skills in Matlab and Fortran are a plus, and have some modeling experiences;
- Interest in ecohydrological processes, ecological, and environmental studies;
- Ability to work independently and as part of a larger team;
- Most of all, the candidates should be highly self-motivated, responsible, intellectually curious and enthusiastic about the project topic and Ph.D. study, and interested in software system development and water;
- Candidates with a M.S. degree is desirable, but qualified candidates with B.S. are also highly encouraged to apply as well.

## **How to apply:**

Interested candidates are encouraged to:

- Contact Prof. Xu Liang first with information on research experiences and interests, motivations to pursue a Ph.D. degree, and career aspirations (with unofficial academic transcripts for B.S. and M.S. if applicable, curriculum vitae/resume) at [xuliang@pitt.edu](mailto:xuliang@pitt.edu); and
- Submit your Ph.D. applications to the graduate program in the Department of Civil and Environmental Engineering at the University of Pittsburgh with the following documents: transcript(s), curriculum vitae, recent GRE scores, recent TOEFL/IELTS scores (international students), cover letter (including academic, research and professional goals and interests), and letters of recommendations.
- More information about Prof. Xu Liang can be found at the website: <https://www.engineering.pitt.edu/XuLiang/>