

Scientific Programmer: Software Development for Multisector Dynamics of Coupled Human and Earth Systems

University Park / State College, PA

The Earth and Environmental Systems Institute (EESI, <http://www.eesi.psu.edu>) at The Pennsylvania State University invites applications for a non-tenure line full-time Scientific Programmer position. Successful candidates will become part of an interdisciplinary research team within the DOE-sponsored **Program on Coupled Human and Earth Systems (PCHES, <https://pches.psu.edu>)**. Spanning eight universities, PCHES brings together a transdisciplinary team of scholars that seeks to create a new, state-of-the-art, integrated modeling framework to drive advances in the quantitative understanding of coupled energy, water, and land systems. The program provides participants with unique opportunities for research, education, cross-institution collaboration, and professional development.

The selected candidate will work with PCHES project teams and affiliated researchers to develop modeling, data processing, visualization, and decision analysis tools. Desired areas of expertise include developing and running Earth system, integrated assessment, agricultural, and hydrological models and/or their components; econometric analysis; geophysical and economic data visualization; model coupling; and statistical analysis of large datasets. The primary languages used by PCHES researchers are **R, Python, Matlab, and GAMS**; significant experience with model development and data analysis in one or more of these languages is essential. Experience working in high-performance computing environments and with additional relevant languages such as C/C++, Fortran, Julia, or NCL is also desirable. Initial projects may include (but are not limited to) development of tools for model coupling, data format translation, multi-objective trade-off analysis, uncertainty quantification, and deployment of large model ensembles.

The successful candidate should have a Master's degree or Ph.D. in a relevant field and a demonstrated record of achievement in scientific computing. Fixed term academic rank will be commensurate with education and experience. This is a fixed term one position, funded for one year from the date of hire, with good possibility of refunding.

Applicants should upload a cover letter, a resume/CV, and contact information for at least three professional references, all in PDF format. The cover letter should explain the applicant's interest in the position, highlight relevant qualifications and experience, and **include links to at least two examples of relevant prior work**. Applicants should also provide evidence, either woven through their application materials, or as a separate diversity statement, of a commitment to fostering diversity, equity, and inclusive excellence and engagement in their work environment.

Review of applications will begin immediately, and the position will remain open until filled. Questions regarding the position should be directed to Dr. Robert Nicholas (ren10@psu.edu). To apply, visit <https://psu.jobs/job/84284>.

To review the Annual Security Report which contains information about crime statistics and other safety and security matters and policies, please go to <https://police.psu.edu/annual-security-reports>, which will also explain how to request a paper copy of the Annual Security Report.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.