Scientific Programmer
Software Development for Climate Risk Management

A scientific programmer position is available in the Earth and Environmental Systems Institute at the Pennsylvania State University. Successful candidates will become part of an interdisciplinary research network on Sustainable Climate Risk Management (SCRiM, http://scrimhub.org/). Centered at Penn State and linking 18 universities and five research institutions in six nations, SCRiM addresses the question: What are sustainable, scientifically sound, technologically feasible, economically efficient, and ethically defensible climate-risk management strategies? SCRiM catalyzes fundamental, mission-oriented, and transdisciplinary research to characterize climate risks and trade-offs associated with risk management instruments such as mitigation, adaptation, and geoengineering. The network provides unique opportunities for research, education, outreach, decision support, and professional development.

The selected candidate will work with SCRiM project teams and affiliated researchers to develop modeling, analysis, visualization, decision support, and educational tools. Desired areas of expertise include developing and running Earth system models and/or their components, geophysical data visualization, statistical analysis of large datasets, optimization techniques, and development of web-based graphical user interfaces. The primary languages used by SCRiM researchers are Python, R, C/C++, and Fortan, and significant experience with data analysis in one or more of these languages is essential. Experience SCRiM research topics, working in high-performance computing environments, and with additional relevant languages such as Julia, Matlab, NCL, Javascript, and PHP is also desirable. Initial projects may include (but are not limited to) development of a graphical user interface for a simple integrated assessment model, development of a data portal for downscaled climate data, development of a decision support tool for coastal flood risk management, porting and modification of climate models for use on SCRiM cyberinfrastructure, and coupling of model components (originally developed for different disciplinary domains) for multi-objective trade-off analyses in a high-performance computational environment.

The successful candidate should have a Master's degree in a relevant field (Ph.D. preferred) and a demonstrated record of achievement in scientific computing. The position is available immediately and will remain open until filled. Initial appointment will be for a period of one year, with excellent possibility of renewal for one or more additional years.

Apply to job # 67684 at: https://psu.jobs/job/67684

Campus Security Crime Statistics: For more about safety at Penn State, and to review the Annual Security Report which contains information about crime statistics and other safety and security matters, please go to http://www.police.psu.edu/clery/ , which will also provide you with detail on how to request a hard copy of the Annual Security Report.

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