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Scientific Software Developer
Computational Support Team

Job Description

The Pacific Climate Impacts Consortium (PCIC) is a regional climate service centre at the University of Victoria that provides practical information on the physical impacts of climate variability and change to users and stakeholders in BC and across Canada. The *Scientific Software Developer* works to develop and maintain high-quality scientific software from experimental software prototypes. In collaboration with PCIC climate scientists and the Computational Support team, the successful candidate will write software for incorporating climate change scenarios into engineering design guidelines for built infrastructure.

You will be a part of a talented and dedicated team that enables access to PCIC's flagship data products and innovative web-based analysis tools. Your software will play a key role in informing government policy with respect to the impacts of climate change. Your open source code will see the light of day and be used immediately to study climate change and disseminate climate change information to users and stakeholders.

Accountabilities

- Serve as primary developer and release manager for PCIC's infrastructure design guidelines software library
- Obtain and maintain a complete understanding the relevant statistical methods
- Refactor research prototypes into composable, reusable, open source software
- Collaborate with climate statisticians within (and outside of) PCIC to validate all software
- Reports to the Lead, Computational Support

Knowledge, Experience, and Abilities

Knowledge
- Bachelor's degree majoring in Computer Science, Computer Engineering, Mathematics, Statistics, a related field of study, or a commensurate level of experience

- Working knowledge of (able to efficiently read and write) at least four programming languages (e.g. R, Python, C/C++, Java)
- Knowledge of differential equations, linear algebra, probability and statistics
- Knowledge of Big O notation and algorithm complexity analysis
- Some knowledge of environmental statistical analysis methods, numerical analysis and numerical optimization is a plus

Experience
- Significant experience as a Linux user
- Experience with distributed revision control software
- Experience developing Open Source Software is desirable
- Experience parallelizing large problems is desirable
- Experience using profiling and debugging tools
- Experience using Test Driven Development and writing automated test suites is a plus

Abilities
- Ability to estimate problem size and ability to process datasets which are larger than available RAM
- Ability to work effectively and collegially with others inside and outside of the organization
- Ability to communicate technical material in a multi-disciplinary environment

Employment period

Two years term commitment, subject to satisfactory completion of a 6-month probationary period, with possibility of renewal dependent on continued project funding.

Weekly working hours	**Pay rate**
Full time (37.5 hours per week)	Commensurate with education and experience

Additional information: Address enquiries to James Hiebert at climate@uvic.ca.

Application: Please send your application including a cover letter, CV, and three professional references to James Hiebert, climate@uvic.ca, with "**ATTN: Scientific Software Developer**" in the subject line. Please indicate whether you are legally able to work in Canada.

Review of applicants will start **immediately** and will continue until a suitable candidate is found.