

University House 1 PO Box 1700 STN CSC University of Victoria Victoria BC Canada V8W 2Y2 Phone: (250) 721-6236 Fax: (250) 721-7217 Website: http://pacificclimate.org/

Co-op Position: Assistant Programmer/Analyst Computational Support Team

PCIC is seeking to hire an Assistant Programmer/Analyst.

Pacific Climate Impacts Consortium (PCIC)

The Pacific Climate Impacts Consortium (PCIC) was created to assess climate impacts in the Pacific and Yukon Region of Canada. The goals of the Consortium are to foster collaborative research, to strengthen the capacity to address regional climate change and variability, and to provide the scientific basis for policy development. 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. Through collaboration with climate researchers and regional stakeholders, PCIC produces knowledge and tools in support of long-term planning. http://www.PacificClimate.org

Job Description

The Pacific Climate Impacts Consortium (PCIC) hosts over two dozen scientists, analysts, post-doctoral fellows and students performing leading edge climate research. The *Assistant Programmer/Analyst* works to automate data acquisition to support our online applications for serving and analyzing climate data. At present, we maintain a rack full of Linux servers at the University of Victoria which host hundreds of terabytes of high-resolution spatio-temporal climate data and model output and hundreds of millions of meteorological observations. The challenge of this position is to automate data acquisition from a heterogenous network of networks of weather stations distributed across Canada.

You will assist a talented and dedicated team that enables access to PCIC's flagship data products and innovative webbased analysis tools. The data that you help to acquire and manage will be the foundation for our applications that provide public access to and creative visualization of open and big data. Your code will see the light of day and be used immediately to study climate change.

You will work in the PCIC Computational Support Group, a small team that utilizes cutting edge technology in order to provide insight to climate solutions for our stakeholders. You will receive hands-on experience with the open source software development process, automated software deployment tools (e.g. Docker), and continuous integration and testing tools (e.g. TravisCI). By nature of the small team, you will have the opportunity to provide some level of technical leadership, own the software design decisions, and have the uncommon experience of deploying your code live to immediately service hundreds to thousands of our existing users.

Accountabilities

- Assist in the development and refactoring of PCIC's open source, meteorological data acquisition packages (crmprtd, gulpy, and PyCDS).
- Assist in acquiring geospatial meteorological data from PCIC's provincial and territorial government partners
- Assist in creating the next generation of PCIC's Data Portal, which publishes climate data to the world
- Assist in performing usability studies of PCIC's web products
- Reports to the Lead, Computational Support

Knowledge, Experience, and Abilities

Knowledge

 Majoring in Computer Science, Computer Engineering or a related field of study, or a commensurate level of experience

Pacific Climate Impacts Consortium, University of Victoria, PO Box 1700 STN CSC, Victoria, BC V8W 2Y2 Canada

- Working knowledge (able to read and write) of 2+ programming languages (e.g. Python, JavaScript)
- Knowledge of Big O notation and algorithm complexity analysis
- Knowledge of database management systems (e.g. PostgreSQL/PostGIS) is a plus

Experience

- Experience as a Linux user
- Experience with distributed revision control software (e.g. git)
- Experience using Test Driven Development and continuous integration is a plus

Abilities

- Ability to break problems into multiple reusable components
- Attention to detail
- Ability to work effectively and collegially with others inside and outside of the organization
- Ability to learn and understand our domain-specific needs (i.e. Climate Science)
- Ability to communicate technical concepts to (non-computational) scientific staff

Employment period

This is a co-op work term position.

Weekly working hours Full-time (37.5 hours per week) Pay rate \$CAD3,000.00 / month

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

Application: Please send your application including a cover letter, CV, and three professional references to James Hiebrert, <u>climate@uvic.ca</u>, with "**ATTN: Assistant Programmer/Analyst**" in the subject line. Please indicate whether you are legally able to work in Canada.