

## **Job Posting:172964 - Position: W26 Co-op Student: Junior Realtime Controls Software Engineer 172964**

<b>Co-op Work Term Posted:</b>	2026 - Winter
<b>App Deadline</b>	09/22/2025 09:00 PM
<b>Application Method:</b>	Through Employer Website
<b>Posting Goes Live:</b>	09/09/2025 03:25 PM
<b>Job Posting Status:</b>	Approved

## **ORGANIZATION INFORMATION**

<b>Organization</b>	NRC - National Research Council of Canada
<b>Address Line 1</b>	5071 West Saanich Rd
<b>City</b>	Victoria
<b>Postal Code / Zip Code</b>	V9E 2E7
<b>Province / State</b>	BC
<b>Country</b>	Canada

## **JOB POSTING INFORMATION**

<b>Placement Term</b>	2026 - Winter
<b>&lt;b&gt; Job Title &lt;/b&gt;</b>	W26 Co-op Student: Junior Realtime Controls Software Engineer 172964
<b>Position Type</b>	Co-op Position
<b>Job Location</b>	Victoria, BC
<b>Country</b>	Canada
<b>Duration</b>	4 months
<b>Salary Currency</b>	CAD
<b>Salary</b>	833.0 per week for 37.5 Major List
<b>Salary Range \$</b>	From \$833 to \$1107 per week (37.5 hrs)
<b>Job Description</b>	

**Job Title: Career Opportunities: Co-op Student: Junior Realtime Controls Software Engineer (24384)**

**Job ID:** 24384

**Closing Date:** Monday, 22 September 2025 - 23:59 Eastern Time

Priority may be given to the following designated employment equity groups: women, Indigenous peoples\* (First Nations, Inuit and Métis), persons with disabilities and racialized persons\*.

\* The *Employment Equity Act*, which is under review, uses the terminology Aboriginal peoples and visible minorities.

Candidates are asked to self-declare when applying to this hiring process.

**City:** Victoria

**Organizational Unit:** Herzberg Astronomy and Astrophysics

**Discover the possible**

Anything is possible at the National Research Council (NRC), recently named one of Canada's 2025 Top Employers for Young People, a 2025 Top Employer in the National Capital Region and Forbes Canada's Best Employers!

As Canada's leading research and technology organization, our world-renowned research pushes the boundaries of science and engineering to make the impossible, possible. Every day we explore new ideas through innovative research and help companies discover possibilities that impact Canada's future and the world.

At the NRC, you'll also discover new possibilities. Our supportive workplace fosters a culture of creativity, welcoming fresh

perspectives and innovation at all levels. We value teamwork. You'll collaborate across multiple fields and with the brightest minds to find creative solutions. Most importantly, you'll discover what's possible within you as you grow, make valuable contributions and progress in your professional journey. From ground-breaking discoveries to a life-changing career, discover your possible at the NRC.

### **Project Description**

The National Research Council of Canada - Herzberg Astronomy and Astrophysics (NRC-HAA) Research Centre in Victoria, British Columbia, is developing the Herzberg Extensible Adaptive Real-time Toolkit (HEART) for the next generation of Adaptive Optics (AO) systems for various Observatories. HEART is a distributed and scalable software framework that includes a collection of libraries, tools and other software that can be assembled to construct a wide variety of real-time AO control systems. HEART is currently under development, implemented in C/C++, Python, and JavaScript and is intended to run on off-the-shelf CPUs.

As a student working for NRC-HAA you will participate in the full spectrum of software development, primarily working on developing analysis tool and realtime displays for HEART and motor controllers.

### **Length of Term**

This is a «16 week» term.

Anticipated dates: starting 5 January 2026, ending 24 April 2026.

### **Your Responsibilities**

Depending on skills and experience, tasks may include:

- Development of a dynamically generated and interactive control data flow diagram of an AO system.
- Developing telemetry data analysis tools in Python.
- Modify motor controller software in C/C++.
- Developing realtime displays for motor controller software.
- Automated realtime display testing.
- Assist with refactoring and/or re-designing sub-components within the HEART

### **Salary Range**

- From \$833 to \$1107 per week (37.5 hrs)
- Salaries are determined based on the student's work term.

### **Notes**

- In 2025, the NRC has been chosen as one of Canada's Top Employers for Young People, the National Capital Region's Top Employers and Forbes Canada's Best Employers.
- The incumbent must adhere to safe workplace practices at all times.

## **Job Requirements**

### **Education**

Preferred Education level:

- University Undergraduate, 3rd or 4th year preferred in Computer Sciences, Software Engineering, Computer Engineering, or Electrical Engineering.

### **Requirements**

Candidates should have:

- Strong programming skills, with the ability to work effectively in both Linux and Windows environments.
- Excellent written and oral communication skills are required.
- Experience with Python and C/C++ is required.
- Experience with JavaScript would be an asset.
- Experience with Git and software development environments would be an asset.
- Knowledge of web development would be an asset.
- Knowledge of threads would be beneficial but not essential.

### **Who can apply?**

#### **You are eligible for the NRC Co-op Program if:**

- You attend a Canadian university/college with a recognized co-op program.
- You possess a minimum "B" academic average or equivalent (preference may be given to candidates with a "B+" academic average).
- You are a Canadian Citizen or Permanent Resident of Canada. Additionally, foreign national students who meet the eligibility requirements, are studying in recognized and eligible Canadian educational institution and possess a valid Co-op Work Permit may also apply. For more detailed requirements and information on this possibility, please refer to the information found at Citizenship and Immigration Canada.

**Condition of Employment**

Reliability Status

For a Reliability Status, verification of background information over a period of 5 years is required.

**Citizenship Requirement** N/A**APPLICATION INFORMATION****Application Procedure** Through Employer Website**Cover Letter Required?** Yes**Address Cover Letter to** Hiring Manager**Special Application Instructions****Application Link:**

<https://career17.sapsf.com/sfcareer/jobreqcareerpvt?jobId=24384&company=nationalreP&st=FD7E810CBD62243B32F4292C21BC4DD575EE3D3D>

**Application Requirements**

In order to be considered for the Co-Op program please include the following in your application. Failure to do so will result in your application being excluded from searches.

- Cover Letter
- Resume
- Transcript

We will accept the most recent university/ college transcript available. Please ensure that your full name is clearly indicated on your transcript.

**Closing Date: Monday, 22 September 2025 - 23:59 Eastern Time**

**Please click the "I intend to apply to this position" button on SCOPE and also submit your application via the employer's website. Applications are accepted on a rolling basis and the posting may be expired at any time by the employer as submissions are received. Students should submit their applications as soon as they are ready.**