Job Posting:169937 - Position: F25 Co-op Student: Software Developer 169937

Co-op Work Term Posted:	2025 - Fall
App Deadline	06/02/2025 11:59 PM
Application Method:	Through Employer Website
Posting Goes Live:	05/22/2025 02:54 PM
Job Posting Status:	Approved

ORGANIZATION INFORMATION

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

JOB POSTING INFORMATION

Placement Term	2025 - Fall
<b> Job Title <b>	F25 Co-op Student: Software Developer 169937
Position Type	Co-op Position
Job Location	Penticton, BC
Country	Canada
Duration	4 months
Salary Currency	CAD
Salary	833.0 per week for 37.5 Major List

Job Description

Job Title: Co-op Student: Software Developer (23970)
Job ID: 23970
Application Deadline: <mark>Monday, 2 June 2025 - 23:59 Eastern Time</mark>
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.
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

CanfarAI is an AI-agent-based astronomical data search and analysis platform. During the Fall 2025 work term you'll help the Canadian Astronomy Data Centre extend CanfarAI, a chat-style interface that lets researchers (and citizen scientists) query CADC archives with Large Language Models. The project couples a fine-tuned open-source LLM, a vector-search layer, and CANFAR's cloud infrastructure to deliver faster, smarter data discovery.

Length of Term

This is a **«16 week»** term.

Anticipated dates: starting between 3-5 September 2025, ending Tuesday, 23 December 2025.

Responsibilities

• Evaluate lightweight open-source LLMs for astronomy-data search and analytics

• Develop Python wrappers (or Ollama plug-ins) to expose chosen models via a REST/JSON API

• Build or enhance back-end services (FastAPI, Express, or Django/Flask) that connect the LLM layer to CANFAR data stores and the Skaha compute cluster

• Implement or refine front-end React + TypeScript components that let users chat with the agent, browse results, and visualize outputs

• Write clean, testable code with unit/integration tests and participate in code reviews

• Document features and tasks in JIRA, including concise README / API specs for future contributors

Condition of Employment

Reliability Status

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

Salary Range

From $833 to $1,107 per week (37.5 hrs); salaries are determined based on the student's work term.

Current work term Weekly rate of pay (37.5 hrs)

First $833

Second 900

Third $948

Fourth $993

Fifth $1,052

Sixth $1,107

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, preference 3rd year or higher in Computer Science.

Requirements

• Solid coursework or project experience in Python and TypeScript/JavaScript

• Familiarity with at least one of Node (Express), Django, Flask, or FastAPI

• Working knowledge of React (hooks/state) and modern front- end tooling (Vite or Webpack)

• Comfortable with Git workflows, JSON/REST, and basic Linux or Docker commands

• Strong analytical and communication skills, plus a willingness to learn LLM and vector-database concepts

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.

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=23970&company=nationalreP&st=6868E22F28EF80ABE7D167DAE61

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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.

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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.