

GIS Analyst

Turn location data into maps and answers. GIS (geographic information systems) work sits behind city planning, utilities, mining and emergency response.

TYPICAL PAY

\$79,000

a year, full time

PAY RANGE

\$48k to \$112k

starting to experienced

TIME TO QUALIFY

2 to 4 years

after high school

DEMAND

Moderate

job outlook

LICENCE NEEDED

No

anyone can do it

WHERE YOU WORK

City halls, utilities, mining and forestry companies, consulting fir...

How you get there

- 1 High school diploma** Grade 12
 Geography, math and any computer course. Start making maps at home with free software.
- 2 Diploma or degree** 2 to 4 years
 A two-year college diploma in GIS (geographic information systems) or geomatics, or a four-year degree in geography, environmental science or computer science.
- 3 Postgraduate certificate, optional but common** 1 year
 A one-year applied mapping certificate taken after a degree. Many employers treat it as the real entry ticket.
- 4 Co-op or first contract** 4 to 18 months
 Almost everyone starts on a term contract with a city, consultant or utility, then converts to permanent.
- 5 Build a portfolio** Ongoing
 Three or four public projects using real open data beat a transcript at interview.

Pros and cons

- + Short, cheap training compared to most technical careers
- + Work in almost any industry, in almost any town
- + Clear route to higher pay through programming
- Junior jobs are often short contracts before anything permanent
- Plenty of graduates compete for entry roles
- The title alone tops out near \$90,000 without coding skills

Optional boosts

Python. SQL (the language used to ask questions of a database). Web mapping. Remote sensing.

Good to know

The whole field started in Canada

The first computerized mapping system was built here in the 1960s for the Canada Land Inventory, led by geographer Roger Tomlinson. He is usually called the father of GIS (geographic information systems), a...

Canada's maps are free

Natural Resources Canada publishes the Atlas of Canada, aerial photos, satellite images and elevation data that anyone can download at no cost. Most provinces and large cities now release their mappin...

Where these numbers come from

Job Bank: Geographic information systems analyst, wages (updated Nov 2025)

GIS Certification Institute: the GISP designation

Nova Scotia Community College: Centre of Geographic Sciences

Natural Resources Canada: maps, tools and publications

Numbers checked September 2026. Pay figures are typical full-time annual amounts in Canadian dollars, based on Government of Canada Job Bank wage data and published salary grids. They vary by province, employer and experience. Tuition is for domestic students. Sources, links and the click-through version: <https://career.help/ca/careers/gis-analyst>



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