

Machine Learning Engineer

Build the AI systems that actually run. Heavy math, heavy code, and Canada is a world centre for it.

TYPICAL PAY

\$96,000

a year, full time

PAY RANGE

\$62k to \$145k

starting to experienced

TIME TO QUALIFY

4 to 8 years

after high school

DEMAND

Moderate

job outlook

LICENCE NEEDED

No

anyone can do it

WHERE YOU WORK

Tech companies, banks, AI labs, startups, remote

How you get there

- 1 High school** Grades 11 and 12
 Every math course available, especially Calculus and Vectors. Computer science. Start Python now.
- 2 Bachelor's degree** 4 to 5 years with co-op
 Computer science, math, statistics or computer engineering. Waterloo, Toronto, UBC (University of British Columbia), McGill, Montreal and Alberta all have strong AI groups. Take linear algebra, probability and any machine learning course offered.
- 3 Master's degree** 1 to 2 years
 Most job ads ask for one. Thesis-based master's degrees at Canadian universities are often funded, and the national AI institutes offer scholarships.
- 4 Internships and research** During school
 Co-op at a bank's AI team, a startup, or a lab affiliated with Vector, Mila or Amii. A published paper or a well-known open source contribution counts for a lot.
- 5 First job or PhD** After the master's
 Machine learning engineer at a company, or a PhD if you want a research scientist title.

Pros and cons

- + Among the highest ceilings in Canadian tech
- + Canada is a genuine world centre, with funded labs in three cities
- + Work on problems that are changing every industry
- Long education: most jobs want a master's, research wants a PhD
- Hard math, and the field moves so fast that last year's skills date
- Hype cycles: hiring surges and freezes with investor mood

Optional boosts

Large language models. MLOps (machine learning operations). Computer vision. Reinforcement learning.

Good to know

Deep learning was kept alive in Canada

In the 2000s, when most of the world had given up on neural networks, a small group funded by CIFAR (the Canadian Institute for Advanced Research) kept working on them in Toronto and Montreal...

A Nobel Prize for a Toronto professor

Geoffrey Hinton of the University of Toronto shared the 2024 Nobel Prize in Physics for foundational work on neural networks. His Montreal colleague Yoshua Bengio, who founded Mila, shared the Turing Award,...

Where these numbers come from

Job Bank: Machine learning engineer, wages (updated Nov 2025)

Mila: Quebec Artificial Intelligence Institute

Amii: Alberta Machine Intelligence Institute

Vector Institute

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/machine-learning-engineer>



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