

Machine Learning Engineer

Build the systems that learn from data, and keep them running once real people use them.

TYPICAL PAY

\$140,300

a year, full time

PAY RANGE

\$82k to \$231k

starting to experienced

TIME TO QUALIFY

4 to 6 years

after high school

DEMAND

Very high

job outlook

LICENCE NEEDED

No

anyone can do it

WHERE YOU WORK

Tech companies, banks, hospitals, research labs, remote

How you get there

- 1 High school** Grades 9 to 12
 Take the hardest math available and start writing code, ideally Python. Everything after this assumes you already enjoy both.
- 2 Bachelor's degree** 4 years
 Computer science, mathematics, statistics or a related engineering field. Community college for two years then transferring to a public university is the cheapest version of the same degree.
- 3 Build and ship things** Throughout
 Personal projects, open source contributions, competition entries. A working project someone else uses beats a course certificate every time.
- 4 Internships** Summers
 Apply from your second year. This is how most people get their first full-time offer, and many companies hire almost exclusively from their own interns.
- 5 First job, then decide on a master's** 0 to 2 more years
 Engineering roles rarely need one. Research roles usually want a master's or a doctorate. Working first tells you which you actually want.

Pros and cons

- + Among the highest pay available four years after high school
- + Remote and hybrid work is normal
- + No license, no board, no gatekeeper between you and the job
- The junior market is crowded and the interviews are genuinely hard
- Most of the job is data cleaning, not the interesting part
- The field changes fast enough that you are permanently relearning it

Optional boosts

Large language models. Machine learning infrastructure. Computer vision. Applied research.

Where these numbers come from

My Next Move: Computer and Information Research Scientists (15-1221.00)
 Carnegie Mellon University: Machine Learning Department
 Georgia Tech: Online Master of Science in Computer Science
 National Institute of Standards and Technology: artificial intelligence

Numbers checked September 2026. Pay figures are typical full-time annual amounts in United States dollars, based on Bureau of Labor Statistics wage data and published pay scales. They vary by state, employer and experience. Tuition is for in-state students at public schools unless the card says otherwise. Sources, links and the click-through version: <https://career.help/us/careers/machine-learning-engineer>

Good to know

The idea is older than the computers

The first artificial neuron model was published in 1943, and Frank Rosenblatt built the perceptron, a machine that learned from examples, in the late 1950s. The theory sat mostly unused for decade...

Most of the job is plumbing

Practitioners consistently report that the majority of their time goes on collecting, cleaning and labelling data rather than designing models. If you dislike messy spreadsheets and missing values, this field will di...



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