



What Can I Do With a Degree in Computer Engineering?

The information in this handout is meant to provide McGill students graduating with a Bachelor’s degree in Computer Engineering with information and guidance regarding careers in the first 0-3 years after graduation.

The work of a computer engineer is grounded in the hardware, from circuits to architecture, but also focuses on operating systems and software. Computer engineers, or computer hardware engineers, research, design, develop, test, and oversee the manufacture and installation of computer hardware, including computer chips, circuit boards, computer systems, and related equipment. Computer engineers can work in a wide variety of occupations in the high-technology sector, including hardware and software development, telecommunications, robotics, medical technology, and aerospace and in the financial or management consulting industries.

Possible Job Titles

- Applications Engineer
- Computer Engineer
- Computer Hardware Engineer
- Computer Systems Engineer
- Embedded Systems Engineer
- Financial Software Developer
- Investment Banking Analyst
- Information Technology Specialist
- Management Consultant
- Network Engineer
- Project Engineer
- Quality Assurance
- Quantitative Analyst
- Software Developer
- Technical Sales Specialist
- Technical Writer
- Telecommunications Hardware Engineer
- Test Engineer

Additional titles: Human Resources and Skills Development Canada, National Occupational Classification, Computer Engineers at <http://www5.hrsdc.gc.ca/noc/english/noc/2006/ProfileQuickSearch.aspx?val=2&val1=2147&val65=computer+engineer>

Typical Industries

- Construction
- Energy and Utilities: Hydro, Gas, Water, Sewage
- Engineering Consulting
- Finance & Insurance
- Information, Cultural, and Internet
- Government
- Manufacturing
- Oil and Gas
- Scientific and Technical Services
- Transportation

Employers

The list below shows some of the companies who have recruited McGill computer engineering graduates over the past few years:

- Advantech Satellite Networks
- Air Canada
- Alcatel-Lucent
- Altera
- Amazon
- BC Hydro
- Bloomberg LP
- CAE
- CMC Electronics
- EmbVUE
- Electronic Arts
- Ericsson
- Fluor
- General Electric Canada
- Google
- Hewlett Packard
- Hydro-Quebec
- IBM
- Imperial Oil
- Matrox
- Microsoft
- Morgan Stanley
- Municipal, provincial and federal government
- National Instruments
- Ontario Power Generation
- Research In Motion
- SAP Labs Canada
- Samsung
- Shell Canada
- Teradyne
- SNC-Lavalin
- Texas Instruments

Salary Ranges

- Computer Engineering graduates in Quebec (0 – 3 years): average of \$52,100 per year
- Computer Engineering grads in Canada: average of \$56,833 per year
- Computer Engineering graduates in U.S.A.: \$57,404 per year
- Engineering interns in Canada: \$15.00 - \$26.00 per hour

Sources include CACEE Salary Survey (2009), NACE Salary Survey 2009, OIQ report 2010

Professional Licensing

Canada's engineering profession is regulated at the provincial and territorial level. Graduating from an Accredited Engineering Program is the first step towards becoming an engineer. An engineering graduate must have between two and four years of on-the-job engineering work experience under the supervision of a Professional Engineer, as well as pass a professional ethics exam, to obtain a P.Eng. and become a true Professional. The best way to ensure that you take all the required steps as quickly and easily as possible is to register as an Engineer in Training or Junior Engineer with the engineering licensing body in the province or territory where you are working. For further information, visit the website of the Canadian Council of Professional Engineers at <http://www.peng.ca>.

Useful Links for Computer Engineers

- myFuture (McGill students only) <http://engineering.myfuture.mcgill.ca>
- Engineers Canada <http://www.engineerscanada.ca>
- Ordre des ingénieurs du Québec http://www.oiq.qc.ca/fr_index.html
- Institute of Electrical and Electronics Engineers (IEEE Computer Society) <http://www.computer.org>
- Association for Computing Machinery <http://www.acm.org/>
- Engineering jobs board from the Engineering Institute of Canada <http://www.engineeringcareers.ca>