What can you do with a degree in… Software Engineering?

What is Software Engineering?

Software Engineers are qualified professionals involved in the design, coding, and testing of large software products. Software engineers specialize in a number of areas including analog/digital signal processing, integrated circuits, microwaves, fibre optics, lasers, microprocessors etc. They are also responsible for tasks such as directing projects, managing teams, estimating costs and resources, assessing business plans, reviewing proposals and suggesting innovations.

Software engineers are self-motivated, enjoy working with computers and are good at math. Since the work involves process design and development, software engineers are both logical and creative. They should have strong problem-solving and analytical skills, and must be able to communicate effectively with team members, other staff, and the customers they meet. Because they often deal with a number of tasks simultaneously, they must be able to concentrate and pay close attention to detail.

Where do graduates work?

Software Engineers work in a variety of fields, such as designing software applications, creating flight navigation software, developing video games, web applications and search engines for software publishers, government agencies, manufacturing, or in the financial, multimedia, biotech or pharmaceutical industries. Software engineering is a major component of the growing Information Technology (IT) sector.

Recent graduates in Software Engineering have gone on to exciting careers in a wide variety of industries, here a just a few:

Amazon, Software Development Engineer
Electronic Arts, Software Engineer
Google, Software Developer
Longbow, QA Engineer
Microsoft, Software Design Engineer
Morgan Stanley, Technology Associate
Teradyne, Jr. Software Engineer

Industries

Software engineers design, develop and test complex software systems that apply computer technology to specific practical ends such as booking an airline ticket on-line, downloading e-mail or scanning items through a check-out line at the grocery store.

- Information & Communications Technologies
- Software Publishing
- Energy & Utilities: Hydro, Oil & Gas, Water, Sewage
- Engineering & Management Consulting
- Finance & Insurance
- Manufacturing
- Scientific & Technical Services

Useful Resources

Career Resources

McGill Engineering Career Centre
- Resources, information, job postings and links for engineering students

myFuture
- Job postings McGill students

The Engineering Institute of Canada
- Engineering Career Network

Professional Organizations

Engineers Canada
- The national organization of the 12 licensing bodies that regulate the practice of engineering in Canada

Ordre des ingénieurs du Québec
- The regulating body for Engineers in Quebec

Institute of Electrical and Electronics Engineers (IEEE)
- IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.

Association for Computing Machinery
- Educational and scientific computing society, delivers resources that advance computing as a science and a profession.

Student Life

There are several student organizations to help ensure that school life maintains a good mix of work and pleasure.

Engineering Undergraduate Society (EUS)

Electrical, Computer, & Software Engineering Student Society (ECSESS)
- represents all students in Electrical, Computer and Software Engineering (ECSE)

Institute of Electrical and Electronics Engineers (IEEE) McGill student branch
- Dedicated to the development of professional skills

Promoting Opportunities for Women in Engineering (POWE)

Engineers Without Borders

Student Affairs Office
- Housed in the Engineering Student Centre; Academic Advisors provide assistance and information on program planning and academic success.

Salary Information*

Starting salaries will vary according to location, industry and employer.

Average annual salaries for new graduates
Canada: $46,000- $63,000
United States: $56,383 – $64,400

Internship Salaries
$15 - $26 per hour

Sources include: CACEE Campus Recruitment and Benchmark Survey (2011), NACE Salary Survey 2009, RIQ Enquete sur la rémunération directe des ingénieurs salariés du Québec (2012)

Contact Us

McGill Engineering Student Centre (MESC)
Career Centre, Student Affairs Office & Peer Tutoring Services
Frank Dawson Adams Building, room 22
3450 University Street
Montreal, Quebec H3A 0E8
Telephone: 514-398-8100
Email: careers4engineers@mcgill.ca
www.mcgill.ca/careers4engineers