Software engineering involves putting intelligence and reliability into the computing devices and systems our modern world relies on. Software engineers are involved in every phase of software development from coding the software to designing the processes required to design, test and develop it.

With the expansion of mobile computing, software engineers are in high demand to build software programs to analyze data and make it meaningful to businesses. As a software engineer, your work could also involve making the devices used in everything from computer games to banking systems more reliable.

This profile is a starting point for your career exploration. It may help you identify options and guide you in conducting further research, reviewing occupations or connecting with people. It is not intended to list every possible career path, or to limit you to what you see here. This is a tool to guide discovery and uncover opportunities that fit you.

**Key Skills & Knowledge**

- Applied math, circuits, programming, and computer architecture
- Analytical, problem solving and decision making
- Collaborative teamwork
- Oral and written communication
- Project management
- Software analysis, design, implementation, testing, and maintenance

**Sample Job Titles**

- Artificial Intelligence Designer
- E-Commerce Specialist
- Embedded Software Engineer
- Game Designer
- Security Analyst
- Simulation Software Design Engineer
- Software Architect
- Software Developer
- Software Engineer
- Software Quality Assurance Engineer
- Software Systems Designer
- Software Test Engineer
- Systems Analyst
- Systems Integration Engineer
- Telecommunications Software Engineer
- Web Application Developer

Some of these roles may require further training, certification or education. Check out the Alberta Government’s occupational profiles for salary info and more detail: alis.alberta.ca/occinfo

**Potential Industries**

- Application Development
- Artificial Intelligence
- Biometrics
- Business
- Data Analytics
- Computer Systems Design
- Cybersecurity and Privacy
- Entertainment
- Finance and Insurance
- Government
- Healthcare
- Information Technology
- Manufacturing
- Research and Development
- Software Design and Development
- Telecommunications

**Need help deciding what to do?**

Formal Career Assessments like the Strong Interest Inventory and the Myers Briggs Type Indicator can be helpful tools for your career development. Request an assessment via CareerLink
Associations & Professional Development

Associations provide an opportunity for continued professional development. Many also offer networking opportunities and other events for their members.

- Association of Professional Engineers and Geoscientists of Alberta (APEGA): https://www.apega.ca/
- Canada's Association of IT Professionals: http://www.cips.ca/
- Entertainment Software Association of Canada (ESAC): http://theesa.ca/
- Information and Communications Technology Council (ICTC): http://www.ictc-ctic.ca/
- Information Technology Association of Canada (ITAC): http://itac.ca/

Career Services

Your Future Starts Here

- Career Planning
- Job Search Support
- Resume Reviews
- Career Workshops
- Online Job Postings
- Career Fairs
- Networking Events
- Information Sessions & much more!

Connect with us:
MacEwan Student Centre, Room 188
T: 403.220.8020
E: csstdnt@ucalgary.ca
CareerLink: ucalgary.ca/careers

Indeed: https://ca.indeed.com/
CIPS Job Board: http://cipsresources.ca/jobs/
EngineerJobs.com: http://www.engineerjobs.com/
EngineeringCareers.ca: http://www.engineeringcareers.ca
Techjobs.ca: http://www.techjobs.ca
CareerLink: careerlink.ucalgary.ca

Minors, Interdisciplinary Specializations & Combined Programs

- Minor in Entrepreneurship and Enterprise Development (MEED)
- Minor in Management and Society
- Biomedical Engineering Specialization (BMES)
- Bachelor of Science in Engineering and Bachelor of Commerce combined degree

Student Clubs


Job Boards

- Indeed: https://ca.indeed.com/
- CIPS Job Board: http://cipsresources.ca/jobs/
- EngineerJobs.com: http://www.engineerjobs.com/
- EngineeringCareers.ca: http://www.engineeringcareers.ca
- Techjobs.ca: http://www.techjobs.ca
- CareerLink: careerlink.ucalgary.ca

Engineering Student Centre
Engineering Block C 205
T: 403.220.5732
E: engginfo@ucalgary.ca
W: https://schulich.ucalgary.ca/departmentselectrical-and-computer-engineering

Engineering Career Centre
Engineering Block C 205
T: 403.220.3089
E: ecc@ucalgary.ca