MAPPING CALGARY'S DIGITAL FUTURE

A BRIEF FOR EMPLOYERS

Calgary's **job seekers have the skills** you need to grow your business!

A recent study by ICTC and Calgary Economic Development surveyed **nearly 200 employers in Calgary** to identify **in-demand high tech jobs and skills**. At the same time, the study analyzed the **skillsets of key job seekers** and found that they are **considering careers in tech**, and are eager to learn the skills they need to be successful.

Examining weighted competencies of job seekers such as statistical analysis, design thinking, and problem-solving against critical skills for in-demand jobs, ICTC was able to determine the overall skills "match"between key job seekers and in-demand roles.

Many of these **job seekers already have a number of key skills** required for your top jobs, making overall upskilling needs 12 months or less!

Our research found that the **average electrical engineer** is a **70% match for a QA tester**, and that the **average chemical engineer** is a **60% match for a data scientist**.

Find out more about the skills that Calgary's top job seekers already possess to help meet your business needs!

For more information, have a look at the Mapping Calgary's Digital Future report.

OCCUPATION: CHEMICAL ENGINEER

Key Skills

- Proficiency with **Matlab**
- Experience with **process simulation** and **modeling**
- Proficiency with **Aspen HYSYS**
- Basic knowledge of **machine learning** and algorithms
- Strong knowledge of **math** and **statistics**
- Strong **research skills**
- Knowledge of **data analysis**, with experience working with **large technical datasets**
- Knowledge of **database management**
- Proficiency with **ProSource**
- Strong **problem-solving** skills
- Knowledge of **troubleshooting** and debugging
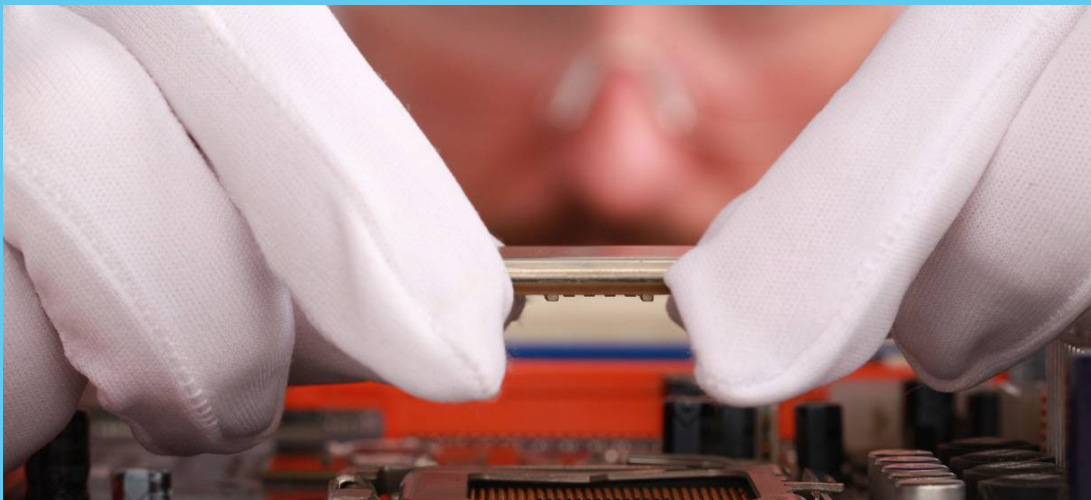- Strong **project management** skills

Total Skills Match (%) for in-demand jobs in Calgary

Data Scientist: **59%**
Data Analyst: **59%**
Software Developer: **38%**
Full Stack Developer: **28%**
UX/UI Designer: **26%**
QA Tester: **58%**
Project Manager: **50%**
Business Development Manager: **23%**

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OCCUPATION: ELECTRICAL ENGINEER

Key Skills

- Proficiency with **Matlab**
- Proficiency with **Simulink**
- Proficiency with **Assembler**
- Proficiency coding in **C++**
- Some experience with **Java** and **JavaScript**
- Experience with **simulation** and **modeling**
- Proficiency with **Verilog**
- Proficiency with **CAD** and **PCB**
- Some knowledge of **machine learning** and algorithms
- Strong **database management** skills
- Strong **research** skills
- Knowledge of **data analysis** including working with **large technical datasets**
- Basic understanding of **website design** and **user experience**
- Knowledge of **source management** tools like **Git** and **Team Foundation**
- Strong **problem-solving** and **troubleshooting** skills

Total Skills Match (%) for in-demand jobs in Calgary

Data Scientist: **67**%
Data Analyst: **68**%
Software Developer: **54**%
Full Stack Developer: **46**%
UX/UI Designer: **44**%
QA Tester: **70**%
Project Manager: **48**%
Business Development Manager: **22**%

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OCCUPATION: ENGINEERING MANAGER

Key Skills

- Proficiency with **Matlab**
- Experience with **process simulation tools like Aspen HYSYS**
- Proficiency with **CAS** and **CRM**
- Proficiency with **SCADA**
- **Six Sigma** Certification
- Knowledge of **modeling** and **design**
- Basic understanding of **machine learning** and algorithms
- Strong **research** skills, including working with **large technical datasets**
- Strong time and **project management** skills
- Proficiency with **Microsoft Project** and **Access**
- Experience **managing budgets**
- Strong **management skills**, including the ability to **manage staff**
- Experience with **client management**

Total Skills Match (%) for in-demand jobs in Calgary

Data Scientist: **45%**
Data Analyst: **38%**
Software Developer: **32%**
Full Stack Developer: **22%**
UX/UI Designer: **21%**
QA Tester: **52%**
Project Manager: **50%**
Business Development Manager: **22%**

OCCUPATION: PETROLEUM ENGINEER

Key Skills

- Strong knowledge of math and statistics
- Experience with process simulation and modeling
- Proficiency with Petrel
- Proficiency with Aspen HYSYS
- Proficiency with Matlab
- Some proficiency with R
- Basic experience with automating processes
- Strong problem-solving skills
- Basic knowledge of data analysis
- Strong research skills, including working with large complex datasets
- Basic understanding of machine learning and logic-based decision making
- Some project planning skills

Total Skills Match (%) for in-demand jobs in Calgary

Data Scientist: **53%**
Data Analyst: **50%**
Software Developer: **32%**
Full Stack Developer: **22%**
UX/UI Designer: **22%**
QA Tester: **52%**
Project Manager: **34%**
Business Development Manager: **19%**

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OCCUPATION: GEOSCIENTIST

Key Skills

- Proficiency with **modeling** and **process simulation**
- Proficiency with **Petrel**
- Proficiency with **Matlab**
- Basic proficiency with **R**
- Understanding of **machine learning** and algorithms
- Experience with **geospatial mapping**
- Proficiency with **ArcGIS** and **QGIS**
- Strong **research** skills, including working with **large technical datasets**
- Strong **database management** skills
- Proficiency with **ProSource**
- Basic proficiency with **Microsoft Access** and **Project**
- Basic knowledge of **bug tracking** and **troubleshooting**
- Strong **problem-solving** skills

Total Skills Match (%) for in-demand jobs in Calgary

Data Scientist: **55%**
Data Analyst: **38%**
Software Developer: **31%**
Full Stack Developer: **21%**
UX/UI Designer: **21%**
QA Tester: **51%**
Project Manager: **17%**
Business Development Manager: **13%**