

COMPUTER SCIENCE TECHNICIAN (PROGRAMMER ANALYST)

Duration | 24 Months (International Students)

Salary | Average annual salary is \$78,000 in Canada

MONTREAL COLLEGE IT

Ministère de l'Éducation et de l'Enseignement supérieur
Permit No. 693570



Designated learning institute (DLI) 019338447682

Program Overview

With a developer base of 8.2 million around the world and powering 1.4% of all the websites on the internet as a server-side programming language, Python is surely a widely loved language and crucial for software development. Also, DevOps (Development & Operations - the combination of cultural philosophies, practices, and tools that increases an organization's ability to deliver applications and services at high velocity), plays a vital too in product development as the stats say - 63% experience improvement in the quality of their software deployments, 63% release new software more frequently and 38% report a higher quality of code production.

This program is a perfect blend of software development & deployment tools, languages, empowering you to be job-ready with the right skill sets. Beginning from the fundamentals, you get to learn the Object Oriented Programming (OOPs) constructs and go onto build websites using Django (Python's web framework). Later, you shall also learn to build awesome APIs (Application Programming Interfaces) using Flask and then be introduced to the concepts of DevOps wherein you get to package your code and build a deployment pipeline.

Course Outline

1 | Introduction to Computer Science

- ☑ Hardware, Operating Systems, Networking
- ☑ Phases of Software Development Life Cycle

2 | Database Concepts

- ☑ Database Administration & querying in MySQL

3 | Fundamentals of Programming

- ☑ Programming constructs using Python
- ☑ Object Oriented Programming (OOPs)

4 | Developing Web and Enterprise Applications I

- ☑ HTML5
- ☑ CSS3 & Bootstrap
- ☑ JQuery

5 | Developing Web and Enterprise Applications II

- ☑ Django Framework
- ☑ Unit Testing & Deployment

6 | Advanced Programming Techniques

- ☑ API development using Flask
- ☑ Unit Testing & Deployment

7 | Introduction to DevOps

- ☑ Understanding continuous development, deployment & delivery
- ☑ Jenkins

8 | Build Configuration and Test Automation

9 | Packaging using Containers

10 | Infrastructure & Service performance

11 | Career Development

- ☑ Building Resume, CV & LinkedIn profiles
- ☑ Cover letters & interview preparation skills
- ☑ Understanding Canadian job market

12 | Project I

13 | Project II

Career Options



DevOps
Engineer



Platform
Engineer



Site Reliability
Engineer



Software
Developer
(Python)



Django
Developer

Skills you Acquire

- ☑ Learning about and gathering new technologies and related tools to introduce to the company in order to grow the agile development environment.
- ☑ Providing direct server support during various operations such as deployment and general production.
- ☑ Building decent UI/UX for websites by following principles.
- ☑ Collaborating with developers to make sure new environments meet requirements and confirm to best practices.
- ☑ Creating custom codes such as Python, HTML, CSS in compliance with client requirements of web applications.
- ☑ Designing, implementing and testing agreed-upon infrastructures/applications.
- ☑ Automating deployment of (nag OS) applications, system configurations and security settings.
- ☑ Prioritizing requests from operations, development and product teams.
- ☑ Participating in peer reviews and agile software development.

Industry Overview

- ☑ According to experts The DevOps market size is expected to grow from USD 2.90 Billion in 2017 to USD 10.31 Billion by 2023, at a Compound Annual Growth Rate (CAGR) of 24.7% during the forecast period. The demand for DevOps solutions and services among enterprises is expected to gain huge traction, due to the increasing need for fast application delivery with high quality.
- ☑ With 59 % of companies deploy multiple times a day, once a day, or once every few days. That's up from 45% last year. In other words, DevOps brings truly continuous deployment, which means there's huge demand for engineers to work in this space.

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Why Choose MCIT?

- 1 Quebec Ministry Approved Diploma**
(MCIT Designated Learning Institution No: 019338447682)
Your credentials are valid as our programs are all attested by the Ministry of Education of Quebec
- 2 Post Graduate Work Permit (PGWP)**
After successful completion of your program, you're eligible for a post-graduate work permit
- 3 Earn while you Learn**
You can work for 20 hours per week as an international student, in accordance with the Canadian Immigration laws.
- 4 On-Campus Job Opportunitee**
You could work as an academic assistant at MCIT, provided you prove your academic excellence and meet our recruitment criteria
- 5 Learn French for Free**
You could learn French language by attending the classes organized by the Quebec Government and reap benefits appropriately, thereby improving your job & immigration prospects
- 6 Support for Co-Op Internships**
We strongly encourage you to take up internship opportunities, apart from your mandatory capstone project in the course

Career Support Services

The Career Center at MCIT is designed to offer students and alumni the opportunity to learn about the Canadian job market and how to sell their skills and experience to successfully find job opportunities. You shall be assisted in learning:

- 1 Canadian customs**
 - 2 The art of Networking**
How to build a professional network
 - 3 Cover Letters Writing**
 - 4 CV & Resume Writing**
 - 5 Internship Preparation**
 - 6 Job Search Checklist**
Exploration, Preparation, Implementation
 - 7 LinkedIn Profile Building**
 - 8 Interview Preparation**
- You'll be Job-ready!**

Learning Methodology

Learning Methodology is the central mechanism for learning advancement. It's the core that drives all your expertise and knowledge to attain professional success.

