

COURSE & SYLLABUS INFO

# APPLIED DEVOPS



WeCloudData

# ABOUT THE PROGRAM

## OVERVIEW

The need for DevOps skills has always been there and the rise in agile software delivery has accelerated the need for a paradigm shift within the world of IT operations. With the right DevOps tools and systems in place, SysAdmins and operations teams can match application development agility with infrastructure provisioning speed. DevOps is on the rise and DevOps engineers command extremely high salaries and a job market demand to envy.

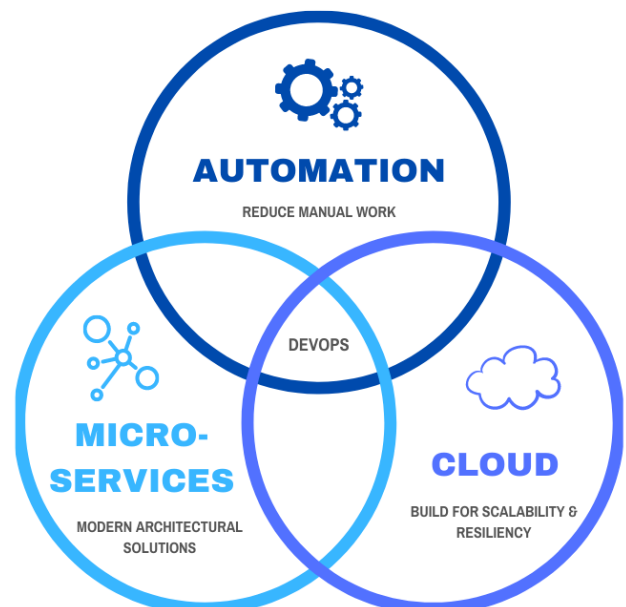
The Applied DevOps Certificate Program is created to help new graduates, IT professionals and career switchers break into the DevOps space. The learning package includes 6 months of intense training and 6 additional months of job support after graduation. This program is very intensive and requires both time commitment and focus. However, the hard work will pay off and you will be proud of your accomplishments.

## FOR THOSE WHO WANT TO

Learn in-demand skills to become a DevOps engineer

Gain hands-on best practice experiences through end-to-end DevOps projects and build a strong portfolio

Receive support through the learning journey and beyond



# PROGRAM DETAILS

## 24 WEEKS

144 lectures hrs + 96 tutorial hrs

## ONLINE LIVE

Interactive Classroom

## THURSDAY

6:00PM - 9:00PM EST/EDT

## SUNDAY

9:00AM - 12:00PM EST/EDT

## 4 : 1 RATIO

4 students : 1 teacher

## 4 PROJECTS

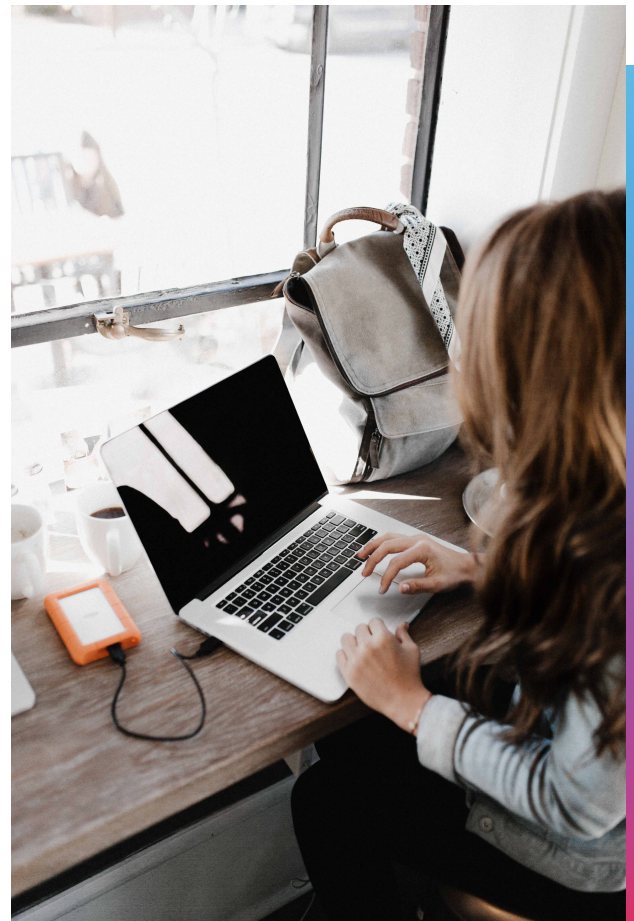
to gain hands-on experiences

## PREREQUISITE

- Basic IT knowledge (e.g. hardware, software, basic networks)
- Basic knowledge of Linux OS
- Basic knowledge of at least one programming language (e.g. Python, Java, Javascript)

## WHAT YOU WILL LEARN

You will gain fundamental DevOps knowledge and learn essential skills in the classroom. To solidify the theory you will practice what you learn in group projects and complete an end-to-end DevOps pipeline that requires the use of industry best practices and tools including Terraform and Kubernetes.



# PROGRAM SERVICES



## PRE-BOOTCAMP SERVICES

One-on-one meeting with program manager and support staff to design a personalized learning path that fits your goals and background.

Over 30 hours of learning materials, labs, and exercises

to get you familiar with fundamental DevOps knowledge and skills including Git, application development, Jenkins, Docker, Kubernetes and Terraform.



Self-paced learning guided and powered by our unique learning management system

where you can watch lectures, work on your codes, test your progress with live quizzes, track your learning journey, and communicate with instructors and TA's.



## ONLINE LIVE LEARNING

**During the bootcamp, you will get:**

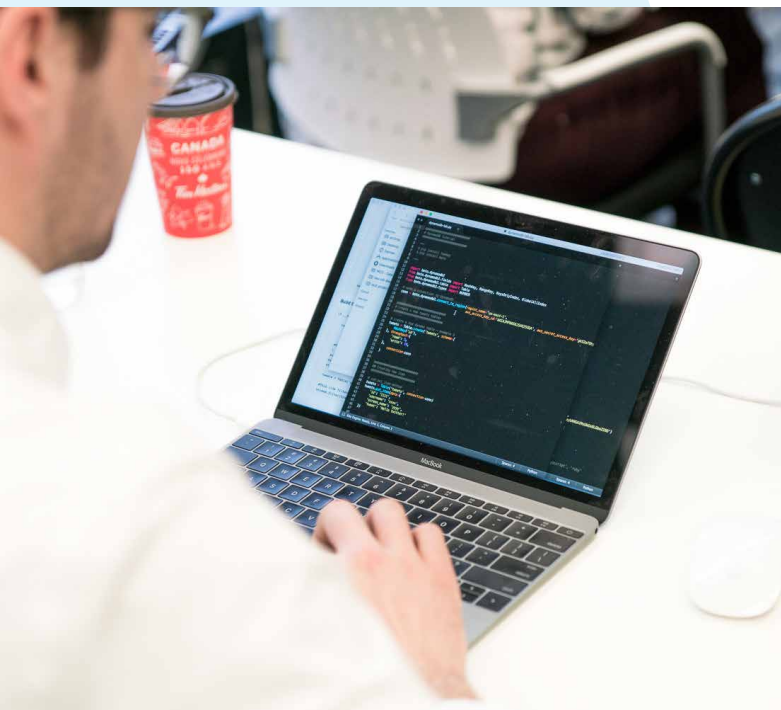
Immersive, accelerated learning experience with tested and most efficient curriculum

Instructor-led live lectures covering in-demand DevOps skills, knowledge and techniques



Labs, projects and quizzes that are designed to help you solve real-world business problems in various industries

Code review on assignments, quizzes and projects with faculty and peers



## CAREER SERVICES

You will receive dedicated support from career services throughout the program:

- One-on-one counselling to set your career goal, assist your job search, and track your progress
- Build a resume and professional DevOps portfolio to demonstrate your skills and project experience
- Build up an industry network through guest seminars, panel discussions and partner workshops
- Alumni referral network & WeCloudData community



## PROJECTS

### Academic Projects & Final Capstone Project

- Students will work on academic projects that reinforce skills in application development, CI/CD, container technologies and infrastructure-as-code
- These academic projects will help the students progress towards a final capstone project that showcases the student's ability to build an end-to-end DevOps pipeline



# CURRICULUM

## WEEK 1

### DevOps Fundamentals

- Introduction to DevOps
- Linux OS & basic commands
- Shell scripting
- Git essentials
- Network essentials

## WEEK 2

### AWS

- Access control & billing
- AWS cloud networks
- EC2 & S3
- Lambda

## WEEK 3

### Application Development Essentials

- Advanced Git
- Python app
- Java app
- Javascript app

## WEEK 4

### Containers

- Introduction to containers
- Dockerfile
- Build application in Docker
- Docker remote repositories

## WEEK 5

### Container Orchestration I

- Introduction to container orchestration
- Introduction to Kubernetes
- Pods, deployments, services

## WEEK 6

### Container Orchestration II

- Kubernetes in the cloud
- Kubernetes & Helm

## WEEK 7

### Observability System

- Logging system
- Monitoring system

## WEEK 8

### Break, Catch-up & Review



## WEEK 9

### Midterm I

- Midterm I

## WEEK 10

### Infrastructure-as-Code I

- Infrastructure-as-Code Fundamentals
- Introduction to Terraform & Terraform fundamentals
- End-to-end infrastructure with Terraform
- AWS CloudFormation

## WEEK 11

### Infrastructure-as-Code II

- Configuration Management with Ansible Part I
- Configuration Management with Ansible Part II

## WEEK 12

### CI/CD I

- Introduction to CI/CD
- Jenkins fundamentals & freestyle
- Jenkins pipeline

# CURRICULUM

## WEEK 13 CI/CD II

- AWS Codebuild
- GitHub Actions
- TravisCI, CircleCI

## WEEK 14 Break, Catch-up & Review



## WEEK 15 Midterm II

- Midterm II

## WEEK 16 Advanced Topics I

- Deployment Strategies I
- Deployment Strategies II

## WEEK 17 Advanced Topics II

- Security I
- Security II

## WEEK 18 Advanced Topics III

- Service Mesh
- API Gateway
- Hashicorp Packer

## WEEK 19 Advanced Topics IV

- Introduction to GitOps
- Flux
- ArgoCD
- Jenkins Xt

## WEEK 20 Guest Lectures & Bonus Topics

- Guest Lectures & Bonus Topics

## WEEK 21 Break, Catch-up & Review



## WEEK 22 Midterm III

- Midterm III

## WEEK 23 Panel Discussions & Final Capstone Project Prep

- Panel Discussions
- Final Capstone Project Prep

## WEEK 24 Final Capstone Project

- Final Capstone Project Presentations



# ADMISSION PROCESS



Our program advisor will have a 1-on-1 meeting with you to see if the program is a good fit for you. There is no application fee. It takes about 30 minutes

There will be a technical test and an interview. Applicants spend up to 2 hours on the challenge.

Our admission officer will work with you directly to help you fill out a contract, pay \$500 deposit and assist you to apply any kind of grant and finance options.

Starting ahead will gain you more experience and competence. Research shows that preview and preparation account for 73.7% success in academic achievement of university students.

## TUITION, GRANTS AND FINANCE OPTIONS

**\$9,100**  
CAD

As an Ontario registered private career college, you can apply for student line of credit from BMO with lower interest rate.

### SCHOLARSHIP

WeCloudData is offering student scholarships. Please contact our advisor for more information.

### GRANT

With Ontario Second Career grant you may be eligible for up to \$28,000 for costs including: tuition, books, manuals, transportation, basic living allowance, child care.

### CONTACT US

Contact our program advisor, Amir, for more information  
**[amir.asadian@weclouddata.com](mailto:amir.asadian@weclouddata.com)**

