

# DATA SCIENCE BOOTCAMP

COURSE & SYLLABUS INFO

Applied Data Science and Big Data

14 weeks | Three intakes: Jan, May, Sep

# CAREER FACTS

Data Scientist is the #1 best job rated by Glassdoor for the fourth year in a row

“

**The Sexiest  
Job of the  
21st Century -  
Data Scientist**

- Harvard Business Review -

Its consistency in competitive salary, numerous open jobs and high job satisfaction over the past four years indicate this will be a desirable job for years to come.

Data scientist roles open at both tech and non-tech companies



## DATA SCIENTIST SALARIES IN CANADA

**\$78,046**

Median Salary

+

**\$7,235**

Bonus

+

**\$2,035**

Profit Sharing

**= \$87,316**

Total median income

# ABOUT THE PROGRAM

## OVERVIEW

WeCloudData's Data Science Bootcamp is a one-stop service program for you to acquire the essential data science skills, gain professional experience through real client projects and prepare for data careers.

The program is intensive, rigorous, and practical by design. Led by experienced instructors, you will learn the cutting-edge technologies including Python, machine learning, deep learning, big data, and cloud computing through a unique hands-on pedagogy. The program is not just about learning, it helps you break into data industry with our extensive career services – portfolio building, resume revision, mock interviews, networking events, and 1-on-1 career coaching throughout the program that leads to your success.

## WHO IS THIS FOR?



### University/College Graduate

*who are looking for the first job*

Your college degree does not give you enough experiences and skills to get a data job



### Career Switchers

*who are looking for a smooth transition*

We have proven success in helping professionals with unrelated background transition into data science careers



### Job Seekers

*who want a systematic approach to polish DS skills and project portfolios*

Taken many courses but still struggling to get an interview? Let us help you focus on the most important skills to build



### Masters/ PhDs

*who lack industry experience*

Let us help you gain real-world experience through our trainee program and teach you the necessary business/ communications skills to succeed in career transition

## PLACEMENT RATE

**100%** of our alumni landed a data science relevant job within 6 months after graduation

University of Toronto: 73.6%, Ryerson University: 86.7% (Bachelor's degree)

## Companies Our Students Work For



Deloitte.

ROGERS.



Bell



amazon

IBM

Manulife



LoyaltyOne

## WECLOUDDATA STUDENTS FIRST JOB SALARY

**\$83,000**

Average Salary



“

I learnt a lot at WeCloudData. Today I can say that I got a job as a senior data consultant for a major global bank not just because of my background, but also because of what I learnt at WeCloudData.

**Sameer Sharma**  
Data Science Consultant @ Bank of America

## PROMOTIONS/SALARY INCREASES

(1.5 years after starting 1<sup>st</sup> job)

**58%**

got a salary increase

**18%**

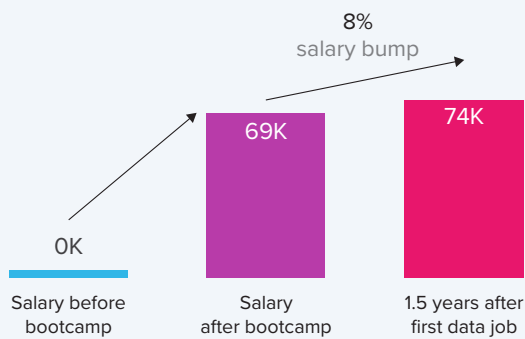
average raise

**25%**

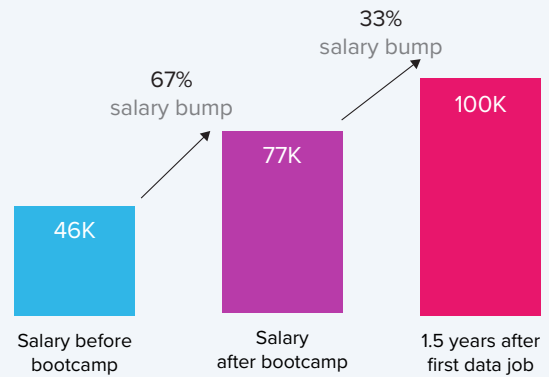
got a promotion

## SALARY INCREASE

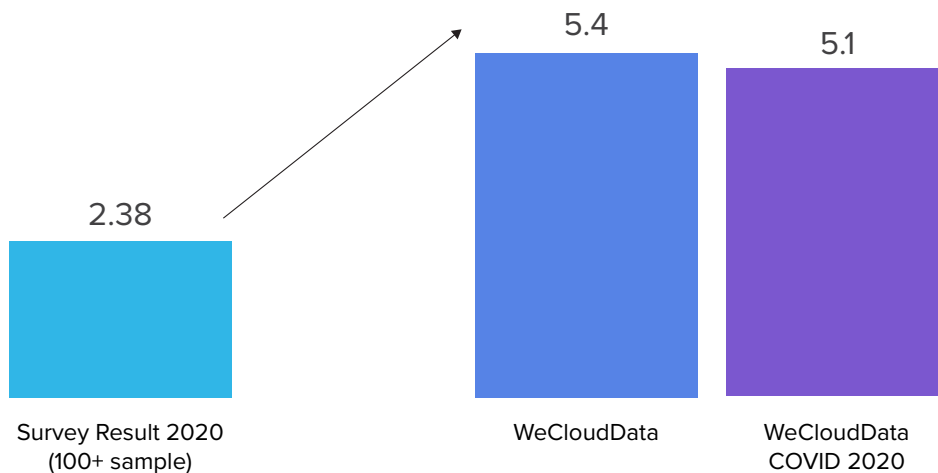
### Students with no previous experience



### Students with experiences



## NUMBER OF INTERVIEWS



# PROGRAM DETAILS

## 14 WEEKS

Jan 24<sup>th</sup> – Apr 29<sup>th</sup>

## 5 LECTURES

a week (9:30am-12:30pm EST)

## 10+ GUEST SPEAKERS

to make connection with

## 1 BUSINESS PROJECT

from a real client



## 576 HOURS

37.5 hours per week

## TA HOURS

1:30pm-4:30pm & 7:00pm-8:00pm

## PRE-BOOTCAMP SERVICE

to get you ready to learn

## 5 PROJECTS

3 academic + 2 portfolio projects



I landed a job in a bank after the bootcamp without previous data related work experience. All people in here are trying to provide the best learning environment and putting tremendous efforts to help students like me reach potential and goals.

Sandy Liu



The coursework at WeCloudData was engaging. The course was heavily weighted towards the practical application and developing real work experience. The full-time bootcamp requires a serious time-commitment within and outside of classroom hours but I always felt supported through the process.

Bruce Petrie

# PROGRAM DETAILS

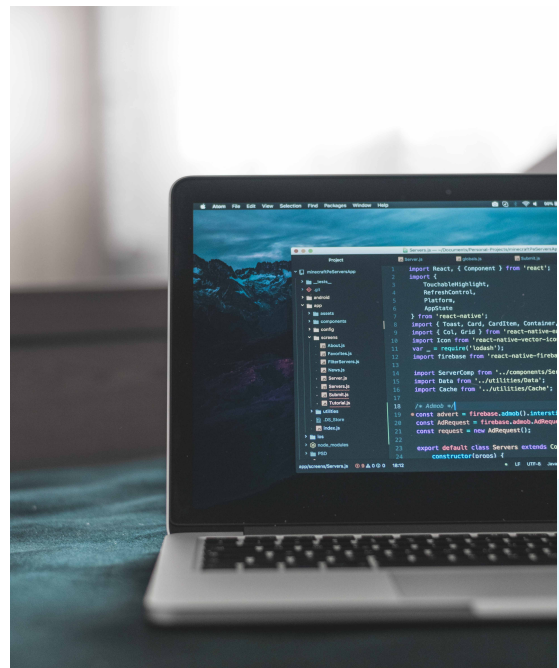


## PRE-BOOTCAMP SERVICE

One-on-one meeting with instructors to design a personalized learning path that fits your goal and background

Over 30 hours of self-learning materials, labs, and exercises

to get you familiar with fundamental data knowledge and skills including SQL and Python program, Machine Learning with labs and projects



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.

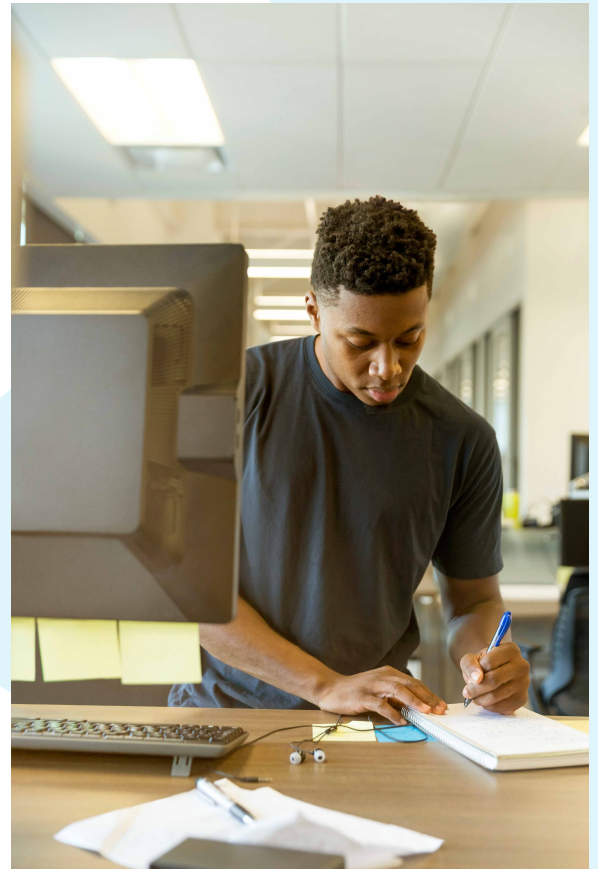


## ONLINE LIVE LEARNING

### During the bootcamp, you will get:

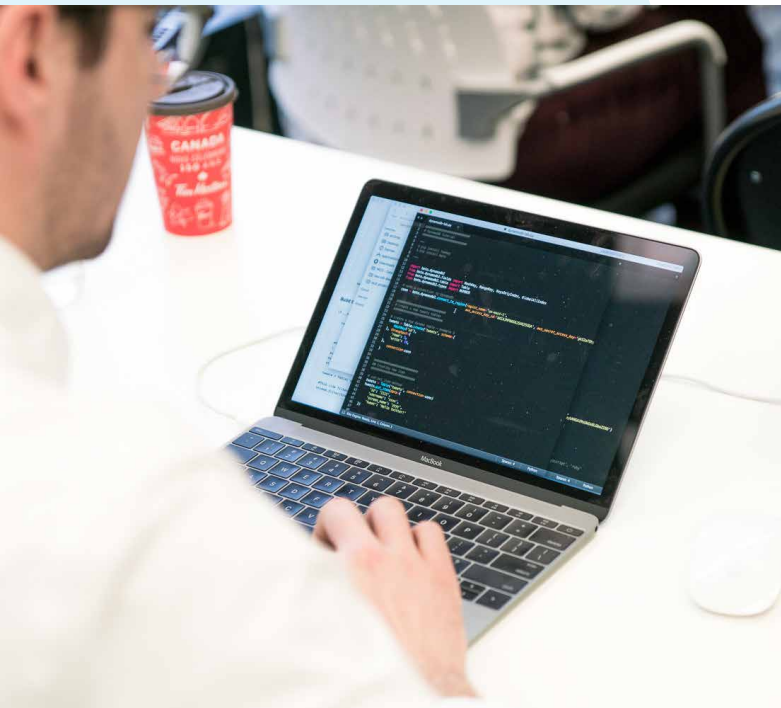
Full-time, accelerated learning experience with tested and most efficient curriculum

Instructor-led live lectures cover highly-demanded data skills, knowledge, algorithm and techniques



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

Code review for your assignments, projects and quizzes according to industrial standards with individualized feedback





# REAL CLIENT PROJECT

You can only gain soft skills from real work experience, which play no lesser role than hard skills in a successful data scientist career, for example translating business problems into analytics questions, reporting, project management, time management, communicating analytics results to non-tech colleagues and shareholders.

Our real client projects allow you to work with a real client directly as a data science consultant. At the beginning of the bootcamp, you will be briefed by a real client with an issue they are looking to solve. You will be led by project manager to leverage the skills you learn though the bootcamp, you will help the clients solve the problem, and present to them.

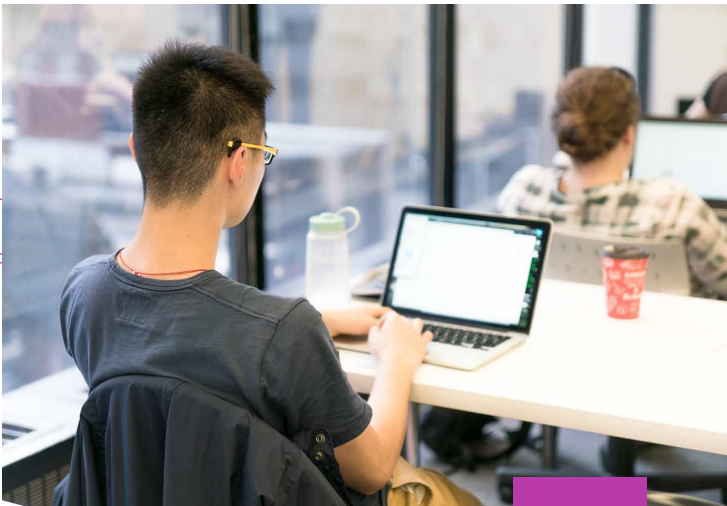
## Past real clients

SAMSUNG



TOROMONT

CAT





## CAREER SERVICES

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

- One-on-one counseling to set your career goal, assist your job search, and track your progress
- Building a resume and professional data portfolio to demonstrate your skills and robust professional experience (Portfolio samples)
- Professional communication coaching to prepare for your behavioral interviews (Mark Caven)
- One-on-one mock interviews on take home assignments, whiteboarding and technical challenges to set you apart in technical interviews.
- Building up your industry network through guest seminars, hiring panel discussions, hiring partner demo workshop (CIBC, Tim Hortons, Loyalty One, Bell Canada)
- Professional profile pictures shooting by commercial photographer, and polish your online professional brand with blogs and LinkedIn
- Alumni referral network, data science community



# SYLLABUS

## ORIENTATION WEEK

### Pre-bootcamp Preparation

- Pre-bootcamp Python
- Pre-bootcamp SQL
- Software Licenses and Installation
- Pre-bootcamp Portfolio Prep

## WEEK 1

### SQL

- [SQL] Relational Database Concepts
- [SQL] Aggregation and Subqueries
- [SQL] Join and Merge
- [SQL] Window Function
- [SQL] Stored Procedures
- [SQL] Quiz #1

## WEEK 2

### Python Programming

- [Python] Basics
- [Python] Data Types
- [Python] Strings and Regular Expression
- [Python] Datetime and Argparse
- [Python] Working with Databases
- [Python] Functions and Modules
- [Python] Web/Data APIs
- [Python] Web Scraping
- [Python] Web Scraping Project

## WEEK 3

### Python for Data Science – Data Wrangling

- [Data Wrangling] Numpy Introduction
- [Data Wrangling] Pandas Introduction
- [Data Wrangling] Pandas Advanced
- [Data Wrangling] Data Visualization with Python
- [Data Wrangling] Python Quiz

## WEEK 4

### Mathematics for Machine Learning

- [Math] Linear Algebra and Calculus
- [Math] Statistics
- [ML] Linear Regression
- [ML] Regularization
- Web Scraping Project Presentation

## WEEK 5

### Machine Learning: Classification Algorithms

- [ML] KNN and Decision Boundaries
- [ML] Machine Learning Process
- [ML] Support Vector Machine
- [ML] Logistic Regression
- [ML] Cross-Validation and Hyperparameter Tuning
- [ML] Decision Tress

## WEEK 6

### Midterm Examination

- Midterm Exam
- [ML] Quiz #1
- Softskills: Time Management, Project Management, Communications
- [ML] Quiz #1 Presentation

## WEEK 7

### Machine Learning: Classification & Advanced Topics

- [ML] Ensemble – Bagging, Boosting, Random Forest
- [ML] Ensemble – XGBoost
- [ML] Imbalanced Dataset
- [ML] Custom Transformers
- [ML] Feature Engineering

## WEEK 8

### Machine Learning: Unsupervised Learning, NLP, and Recommender

- [ML] NLP Introduction
- [ML] NLP Text Processing Basics
- [ML] NLP Ngram Modeling
- [ML] NLP Topic Modeling and Word2Vec
- [ML] Model Interpretation
- [ML] Portfolio Project Kickoff

## WEEK 9

### Machine Learning Portfolio Project Week

- [ML] K-Means Clustering
- [ML] Dimension Reduction and PCA
- [ML] Portfolio Project Work Week
- [ML] Portfolio Project Presentation

## WEEK 10

### Deep Learning

- [DL] Introduction to Neural Networks
- [DL] TensorFlow/Keras API
- [DL] Image Recognition with CNN
- [DL] Introduction to Recurrent Neural Network

## WEEK 11

### Big Data: Amazon Web Services (AWS) / Data Lake

- [BD] Linux 101
- [BD] Docker 101
- [BD] AWS – EC2, S3, Redshift
- [BD] Hadoop, HDFS, MapReduce
- [BD] Apache Hive
- [BD] Advanced Hive + Presto
- [BD] AWS – EMR

## WEEK 12

### Big Data: Apache Spark

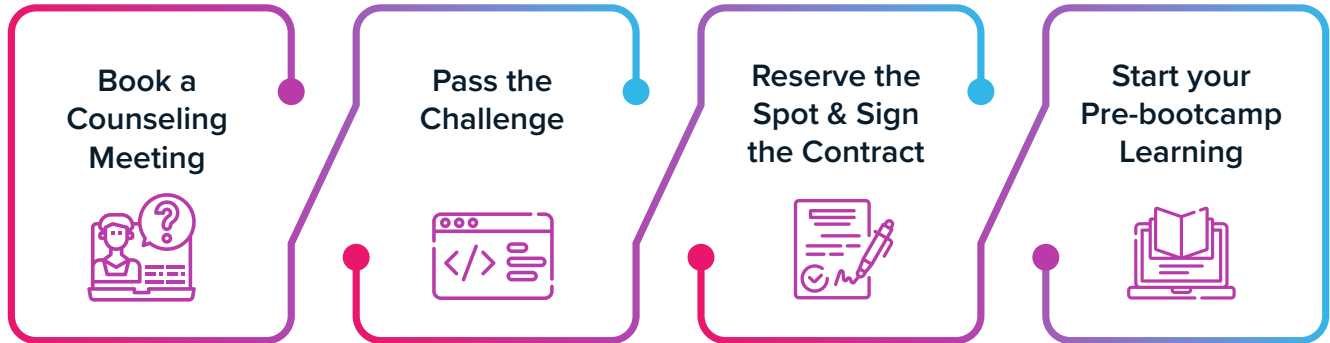
- [BD] Spark – RDD
- [BD] Spark – DataFrame
- [BD] Spark – Internals
- [BD] Spark – Machine Learning
- [BD] Spark – ML Deployment

## WEEK 13

### Big Data: Portfolio Project Week and Final Examination

- [BD] Realtime – Kafka and Kinesis
- [BD] Spark – Streaming
- Interview Practice – SQL Quiz
- [Career] Resume and Interview Workshops
- [Career] Career Counselling

# 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

**\$15,400**  
CAD

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

### EARLY BIRD:

- 12% off. Deadline: November 30, 2021
- 8% off. Deadline: December 31, 2021
- 5% off. Deadline: January 24, 2022

Bootcamp will start on **January 24, 2022**

### 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**



## FAQ

### Want to know more?

Schedule a call with our program advisor or email Amir, who will answer every question you have.

amir.asadian@weclouddata.com  
(647) 588 - 4206

[Contact Now](#)

#### 1. Will I get a certificate after graduation?

Yes! WeCloudData is registered as a private career college under Ontario Ministry of Colleges and Universities with the operating name of “Toronto Institute of Data Science and Technology”. You will receive a diploma degree after completing the bootcamp.

#### 2. Can I work at the same time?

We don't suggest you to do so. The data science immersive bootcamp is a very intensive program to gain all the required skills of data science. You will have to spend evenings and weekends working on your labs, assignments, quizzes, and client projects to gain enough competence that even a master's program cannot offer. Even though it might be stressful, the reward is guaranteed.

#### 3. How does this course relate to WeCloudData's other data programs?

The data science bootcamp provides a one-stop solution for students who are looking for career switching. If you cannot quit your current jobs, we also offer a part-time data science program taught by industry experts with tons of projects. All tuition for part-time data science courses can be deducted from the costs of the bootcamp if you want to switch to bootcamp later.

#### 4. Am I too experienced?

No. We had senior level professionals worked with us to exceed in their career by gaining high-demand data and AI skills. They were able to fill in their skill gaps and combine the tech insights and skills with their decent experience.

#### 5. I have no work experience at all how can I find a data job?

43.64% of our previous students didn't have any work experience. This is where real client project comes to help. This project not only helps you on honing your soft and hard skills, but also gain you more professional experience that employers value the most.