## **Data Engineering**

Course Syllabus

Our unique teaching method and top-notch staff will help you become a **Data Engineer within 5 months**. On top of tech training, you will receive professional career guidance and personal mentorship to help you land your first position. The program is also focused on providing you with the most in-demand tools with a practical approach to the fascinating world of Big Data.

You will spend 10 hours a day at the beautiful Tel-Aviv ITC campus for about four months, mentored by a strong technological team from the industry consisting of Tech Leads, Tech Mentors and the program team.



## **Syllabus**

## 1. INTRODUCTION



- Python Fundamentals
- Analyzing & Exploring Data
- Intro to the Cloud
- linux
- Data Gathering working with APIs + Scraping
- Serving data with APIs

## 2. SOFTWARE ENGINEERING



- Write and Deploy a Web Service
- Continuous Integration and Deployment
- Testing methodologies
- Networking
- Jenkins & Docker
- Microservices & Kubernetes
- Software Engineering Best Practices

3. SQL



- Data Modeling & ERD
- SQL Operations & Functions
- Stored Procedures
- Query Optimization and profiling
- Extract, Transform and load
- Transactions & ACID

4. BIG DATA



- Columnar, Key Value
- Object store and Graph
- Databases
- Hadoop (Yarn, HDFS)
- Spark, Stream processing
- SQL like big data
- Kafka & Data Lakes

\*Syllabus is subject to change

Learn more: www.itc.tech