

# Big Data Analytics

## Overview:

The introduction to Big Data Analytics will cover the foundational topics in data science including: data manipulation, data analysis with stats and machine learning, and data communication with information visualization. This course will give you the opportunity to implement and execute methods dissecting and analyzing large amounts of data. Tech Talent South will cover the basic techniques of big data, including both SQL and NoSQL solutions for large data management, data mining, and statistical modeling.

## Course Outline:

### Week 1

- Big Data Introduction
  - How did Big Data evolved
  - Why Big Data is important
- Data Visualization
  - Using JavaScript and DS3 Library

### Week 2

- SQL Databases
  - Explain the why & how SQL databases are ill suited for big data
- NoSQL Databases
  - Key Value, Document, Columnar

### Week 3

- Graphing Databases and uses for Big Data

### Week 4

- Data Science I
  - Vectors
  - Matrices
  - Understanding Your Data (Mean, Median, Mode, etc)

### Week 5

- Data Science II
  - Probability
  - Bayes Theorem
  - Distribution

### Week 6

- Machine Learning
  - Unsupervised Learning
  - Supervised Learning

### Week 7

- Hadoop I
  - Understanding Map Reduce

#### **Week 8**

- Hadoop II
  - Hadoop EcoSystem

Hours:

24 class hours

Price:

\$2,250

Materials and Equipment:

- Laptop - Mac, Windows, or Linux.
- A text editor (We prefer Sublime Text or Atom, both are free).
- Google Chrome - Free
- Our course work and lessons are all available on the Tech Talent South Student Portal. - Free