

Course Agenda – Georgia Tech Data Science and Analytics Boot Camp

Session 1

- Spreadsheets, Pivot Tables, and Formulae - Diving into Excel
- Crash Course on Adv. Excel
- Catch the thief! Credit card analysis

Session 2

- Visualize it in Excel, VBA style
- Modelling, Forecasting and Predictions II
- Beat the Market

Session 3

- Introduction to Python I
- Introduction to Python II
- Introduction to Python III

Session 4

- Introduction to Numpy and Pandas
- Data Munging with Pandas
- Real-World Data Parsing with Pandas

Session 5

- Intro to Graphing with Matplotlib
- Matplotlib Advanced Customization
- Real-World Data Visualization with Matplotlib

Session 6

- Working with Web Data (API Requests)
- JSON Traversal and Data Parsing
- Visualizing Financial Deserts with Google Places and Census

Session 7

- Intro to Social Media Mining (Facebook)
- Intro to Social Media Mining (Twitter, Tweepy)
- Twitter Bot Building

Session 8

- Project Work + Mini-Session
- Project Work + Mini-Session
- Project Work + Mini-Session

Session 9

- Project Work
- Project Work
- Project Presentations

Session 10

- Introduction to MySQL I
- Introduction to MySQL II
- SQL Application Building #1

Session 11

- Advanced SQL I
- Advanced SQL II
- SQL Application Building #2

Session 12

- Intro to Web Design (HTML / CSS)
- Intro to Web Frameworks (Bootstrap)
- Web Dashboard Building

Session 13

- Web Scraping 101 (Beautiful Soup)
- Web Scraping 102 + Intro to MongoDB
- Data Scraping the News

Session 14

- Intro to JavaScript I
- Intro to JavaScript II
- Intro to JavaScript III

Session 15

- JavaScript APIs
- JavaScript Web Charting
- Interactive Data Visualizations

Session 16

- Fundamentals of D3.js I
- Fundamentals of D3.js II
- Advanced Concepts in D3.js

Session 17

- Geomapping 101 with Leaflet.js
- Geomapping 102 with Leaflet.js
- Primer on CartoDB

Session 18

- Project Work + Mini-Session
- Project Work + Mini-Session
- Project Work + Mini-Session

Session 19

- Project Work
- Project Work
- Project Presentations

Session 20

- Business Intelligence with Tableau
- Interconnected Data with Tableau
- Real-World Tableau Dashboarding

Session 21

- Introduction to Big Data
- Deep Dive into Hadoop
- Pig, Hive, Sqoop Process Development

Session 22

- Introduction to Machine Learning
- Machine Learning Algorithms with Sci-Kit Learn
- Algorithm (Classification) Implementation

Session 23

- Project Work + Mini-Session
- Project Work + Mini-Session
- Project Work + Mini-Session

Session 24

- Project Work
- Project Work
- Final Presentations