## Data Science Workshop - Python

| Day | Time | Session | Topics | Method | Technology |
|---|---|---|---|---|---|
| 1 | 09:00 - 09:30 | 1 | Instructor Introduction and Lab Setup Help | | Python 3.5+ |
| | 09:30 - 10:30 | | Introduction to Data Science Life Cycle | Theory | |
| | Coffee Break (10:30 - 10:50) | | | | |
| | 10:50 - 12:00 | 2 | Introduction to Python - I | Lab | |
| | Lunch Break (12:00 - 01:00) | | | | |
| | 01:00 - 02:30 | 3 | Introduction to Python - II | Lab | |
| | Coffee Break (02:30 - 02:50) | | | | |
| | 02:50 - 04:30 | 4 | Intermediate Python | Lab | |
| 2 | 09:00 - 09:30 | 5 | Questions on Previous Day | Lab | |
| | 09:30 - 10:30 | | Data Analysis in Python - Numpy | Lab | |
| | Coffee Break (10:30 - 10:50) | | | | |
| | 10:50 - 12:00 | 6 | Data Analysis in Python - Pandas I | Lab | |
| | Lunch Break (12:00 - 01:00) | | | | |
| | 01:00 - 03:00 | 7 | Data Analysis in Python - Pandas II | Lab | |
| | Coffee Break (03:00 - 03:20) | | | | |
| | 03:20 - 04:30 | 8 | Data Visualization in Python - Seaborn | Lab | |
| 3 | 09:00 - 09:30 | 9 | Question on Previous Day | Theory | |
| | 09:30 - 10:30 | | Introduction to Machine Learning | | |
| | Coffee Break (10:30 - 10:50) | | | | |
| | 10:50 - 12:00 | 10 | Data Preprocessing Linear, Ridge, Lasso and Elastic Net Regression | Theory | |
| | Lunch Break (12:00 - 01:00) | | | | |
| | 01:00 - 02:30 | 11 | k-Nearest Neighbour - Regression and Classification Classification Metrics | Lab | |
| | Coffee Break (02:30 - 02:50) | | | | |
| | 02:50 - 04:30 | 12 | Logistic Regression Naïve Bayes | Theory and Lab | |
| 4 | 09:00 - 09:30 | 13 | Questions on Previous Day | Theory and Lab | |
| | 09:30 - 10:30 | | Decision Trees and Ensemble Methods | Theory and Lab | |
| | Coffee Break (10:30 - 10:50) | | | | |
| | 10:50 - 12:00 | 14 | Natural Language Processing | Theory and Lab | |
| | Lunch Break (12:00 - 01:00) | | | | |
| | 01:00 - 03:00 | 15 | Association Rule | Theory and Lab | |
| | Coffee Break (03:00 - 03:20) | | | | |
| | 03:20 - 04:30 | 16 | Natural Language Processing | Theory and Lab | |
| 5 | 09:00 - 09:30 | 17 | Question on Previous Day | Theory | Hortonworks Sandbox |
| | 09:30 - 10:30 | | Feature Extraction | Theory | |
| | Coffee Break (10:30 - 10:50) | | | | |
| | 10:50 - 12:00 | 18 | Artifcial Neural Network | Theory | |
| | Lunch Break (12:00 - 01:00) | | | | |
| | 01:00 - 02:30 | 19 | Hadoop Ecosystem With Hortonwrorks | Theory | |
| | Coffee Break (02:30 - 02:50) | | | | |
| | 02:50 - 03:30 | 20 | Big Data Demonstration | Theory and Lab | |