Who can benefit from this course:

- Anyone interested in learning more about R programming, machine learning, and data science.
- This course is suited for people who have never programmed as well as people already familiar with programming.
- Anyone interested in the rapidly expanding world of data science.

Course structure R course

Week 1	
Morning	Introduction to DSLA course
Afternoon	Instructor Lead Case: MTcars (Excel)
Week 2	
Morning	Instructor Lead Case: Simple Classification (Rstudio local)
Afternoon	Intro to Group Case: Classification (Classification Case)
Week 3	
Morning	Presentation of Group Case: Classification
Afternoon	Intro to Instructor Lead Case: Mnist digit Classification (Rstudio AWS/Server) (Image Processing)
Week 4	
Morning	Data Science Theory - Concepts
Afternoon	Intro to Group Case: Sentiment Analysis (NLP, Using APIs, Exploratory Analysis)
Week 5	
Morning	Presentation of Group Case: Sentiment Analysis
Afternoon	Instructor Lead Case: Big Data Spark- Predictive Analytics (Machine Learning)
Week 6	
Morning	Instructor Lead Case: Big Data Spark- Predictive Analytics (shiny)
Afternoon	Intro to Group Case: Big Data Demand Analysis and Predictive Analytics (Hadoop, Hive, Spark)
Week 7	
Morning	Presentation of Group Case: Demand Analysis and Predictive Analytics (GUI)
Afternoon	Intro to Elective Group Case: Dynamic Pricing/ Default Predictions/ Recommendation Systems
Week 8	
Morning	Interview Questions/Concepts
Afternoon	Presentation of Elective Group Case: Dynamic Pricing/ Default Predictions/ Recommendation Systems
Week 9	
Morning	Individual Case
Afternoon	Individual Case
Week 10	
Morning	Individual Case Presentation
Afternoon	Individual Case Presentation

COURSE CURRICULUM

Pre-Week1 Preparation

Install R Studio		00:00:00
Programming Assignment: Complete Git/Github Tutorial		00:00:00
Reading Assignment: Introduction to Statistical Learning – Chapter 1		00:00:00
Optional Reading Assignment: Introduction to Statistical Learning – Chapter 2		00:00:00

Week 1

Philosophy of course and our vision	00:00:00
Student Introductions	00:00:00

Course Outline Discussion		00:00:00
Lunch Break		00:00:00
Introduction to DSLA Website and tools		00:00:00
Data Science Process		00:00:00
Data Science using Excel		00:00:00
Introduction to R platforms		00:00:00

Homework Assignments

Programming Assignment: Swirl – R Programming		00:00:00
Reading Assignment: Introduction to Statistical Learning – Chapter 3 Linear Regression		00:00:00
Reading Assignment: Introduction to Statistical Learning – Chapter 4 Classification		00:00:00
Writing Assignment: Create Aspirational Resume		00:00:00
Case Submission: Data Science Problems in Real Life		00:00:00

Week 2

Introduction to Classification Methods		00:00:00
Introduction to Tree Based Methods		00:00:00
Introduction to Teams		00:00:00
Introduction to Instructor Case: Leaf Classification		00:00:00
Lunch Break		00:00:00
Instructor Case: Discussion		00:00:00
Instructor Case: Code Demonstration		00:00:00
Introduction to Student Case: Mushroom Classification		00:00:00
Group Discussion: Best Practices for Solving Case		00:00:00

Homework Assignments

Programming Assignment: Swirl Course – Regression Models		00:00:00
Programming Assignment: Swirl Course – Getting and Cleaning Data		00:00:00
Reading Assignment: Introduction to Statistical Learning – Chapter 8		00:00:00

Case Submission: Code on Github for Mushroom Classification	00:00:00
Presentation Assignment: Presentation on Mushroom Classification Case	00:00:00
Extra Credit Assignment: Contribution to discussions on DSLA website	00:00:00

Week 3

Student Case Presentation: Mushroom Classification	00:00:00
Introduction to Cloud Computing – AWS	00:00:00
Introduction to Deep Learning	00:00:00
Lunch Break	00:00:00
Introduction to Instructor Case: MNIST Digit Classification	00:00:00
Instructor Case Discussion: MNIST Digit Classification	00:00:00
Instructor Case: Code Demonstration	00:00:00

Homework Assignments

Programming Assignment – Swirl: Exploratory Data Analysis	00:00:00
Programming Assignment: Swirl – Statistical Inference	00:00:00
Technical Assignment: Install and Setup RStudio on AWS	00:00:00
Reading Assignment: Introduction to Statistical Learning – Chapter 5	00:00:00
Reading Assignment: Introduction to Statistical Learning – Chapter 6	00:00:00
Optional Reading Assignment: Read Any Book	00:00:00
Writing Assignment: Written Report on Mushroom Classification Case	00:00:00
Case Submission: Code on Github for Mushroom Classification	00:00:00

Week 4

Introduction to Time Series Forecasting	00:00:00
Group Discussion: Bias vs Variance	00:00:00
Group Discussion: Bagging vs Boosting	00:00:00
Lunch Break	00:00:00
Introduction to Natural Language Processing	00:00:00

Introduction to Student Case: Twitter Sentiment Analysis	00:00:00
Group Discussion: Best Practices for Solving Case	00:00:00

Homework Assignments

Reading Assignment: Read Any Book	00:00:00
Programming Assignment: Shiny Tutorial	00:00:00
Code Submission: Code on Github for Sentiment Analysis	00:00:00
Writing Assignment: Written Technical Report on Sentiment Analysis	00:00:00
Presentation Assignment : Presentation on Sentiment Analysis	00:00:00

Week 5

Student Case Presentations: Sentiment Analysis	00:00:00
Introduction to SQL and Databases	00:00:00
Lunch Break	00:00:00
Introduction to Big Data	00:00:00
Introduction to Spark in R	00:00:00
Introduction to Instructor Case: Big Data Flights	00:00:00

Homework Assignments

Reading Assignment: Read Any Book	00:00:00
Programming Assignment: Build a Creative Simple Shiny App	00:00:00
Technical Assignment: Setup R Spark Cluster on AWS	00:00:00
Writing Assignment: Individual Case Selection	00:00:00

Week 6

Instructor Case Demonstration: Flights (Machine Learning)	00:00:00
Introduction to Shiny	00:00:00
Student Presentations: Demo Shiny App	00:00:00
Instructor Case Demonstration: Flights (Shiny App)	00:00:00
Lunch Break	00:00:00

Student Presentations: Individual Case Selection	00:00:00
Group Discussion: Interview Questions	00:00:00
Introduction to Student Case: Bike Sharing Prediction	00:00:00
Group Discussion: Best Practices for Solving Case	00:00:00

Homework Assignments

Reading Assignment: Read Any Book	00:00:00
Code Submission: Code on Github for Bike Sharing	00:00:00
Writing Assignment: Technical Report on Bike Sharing Case	00:00:00
Presentation Assignment: Presentation on Bike Sharing Case	00:00:00
Programming Assignment: Shiny Dashboard/App on Bike Sharing	00:00:00

Week 7

Student Presentations: Bike Sharing	00:00:00
Introduction to Unsupervised Learning	00:00:00
Student Update on Individual Case	00:00:00
Introduction to Loan Default Analysis Case	00:00:00
Lunch Break	00:00:00
Student Demos: Bike Sharing App/Dashboard	00:00:00
Introduction to Market Basket Analysis Case	00:00:00
Introduction to IoT Insurance Pricing Case	00:00:00
Group Discussion: Best Practices for Solving Case	00:00:00

Homework Assignments

Reading Assignment: Read Any Book	00:00:00
Code Submission: Code on Github for Group Case	00:00:00
Writing Assignment: Technical Report on Group Case	00:00:00
Presentation Assignment: Business Presentation on Group Case	00:00:00
Programming Assignment: Shiny App on Group Case	00:00:00

Week 8

Introduction to Model Selection and Optimization	00:00:00
Student Presentations: Group Case (Business)	00:00:00
Group Discussion: Interview Questions	00:00:00
Lunch Break	00:00:00
Student Presentations: Group Case (Technical)	00:00:00
Student Demonstration: Group Case App	00:00:00
Introduction to Deep Learning II	00:00:00

Homework Assignment

Work on Individual Cases	00:00:00

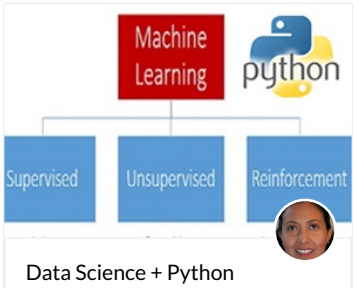
Week 9

Make a Business Presentation and App Demo to our Recruiting Partners	00:00:00

Week 10

Make a Technical Presentation and Submit Code/Report to our Recruiting Partners	00:00:00

RELATED COURSES



Data Science + Python Bootcamp

PRIVATE

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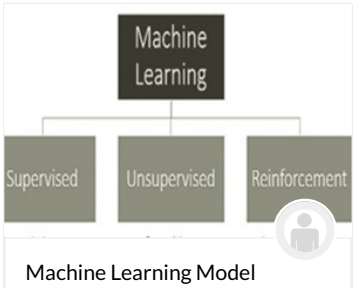

Machine Learning Model making

COMING SOON

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WHO'S ONLINE