uCertify

Course Outline

Machine Learning Labs

27 Jul 2024

1. Course Objective

2. Expert Instructor-Led Training

3. ADA Compliant & JAWS Compatible Platform

4. State of the Art Educator Tools

5. Award Winning Learning Platform (LMS)

6. Live labs

   Lab Tasks

   Here's what you get

1. 📘 Course Objective

Experience the power of hands-on learning in Machine Learning Labs. This interactive course offers engaging lessons and immersive labs where you'll gain practical experience in performing various machine-learning tasks. From working with Pandas DataFrames to exploring visualization libraries and popular machine learning libraries like Scikit-learn, you'll develop the skills needed to excel in the dynamic field of machine learning.

2. 👥 Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

3. ⊗ ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

4. 🛠 State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

5. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
  1. Best Postsecondary Learning Solution

- **2015**
  1. Best Education Solution
  2. Best Virtual Learning Solution
  3. Best Student Assessment Solution
  4. Best Postsecondary Learning Solution
  5. Best Career and Workforce Readiness Solution
  6. Best Instructional Solution in Other Curriculum Areas
  7. Best Corporate Learning/Workforce Development Solution

- **2016**
  1. Best Virtual Learning Solution
  2. Best Education Cloud-based Solution
  3. Best College and Career Readiness Solution
  4. Best Corporate / Workforce Learning Solution
  5. Best Postsecondary Learning Content Solution
  6. Best Postsecondary LMS or Learning Platform
  7. Best Learning Relationship Management Solution

- **2017**
  1. Best Overall Education Solution
  2. Best Student Assessment Solution
  3. Best Corporate/Workforce Learning Solution
  4. Best Higher Education LMS or Learning Platform

- **2018**
  1. Best Higher Education LMS or Learning Platform
  2. Best Instructional Solution in Other Curriculum Areas
  3. Best Learning Relationship Management Solution

- **2019**
  1. Best Virtual Learning Solution
  2. Best Content Authoring Development or Curation Solution
  3. Best Higher Education Learning Management Solution (LMS)

- **2020**
  1. Best College and Career Readiness Solution
  2. Best Cross-Curricular Solution
  3. Best Virtual Learning Solution

6. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

Lab Tasks

Pandas

- Using the read_csv() Function
- Filtering a DataFrame Based on Index
- Indexing a DataFrame
- Sorting a DataFrame
- Creating a Series from a Dictionary Using pandas

NumPy

- Creating a Multi-Dimensional Array Using numpy
- Creating a One-Dimensional Array Using numpy

Visualization Libraries

- Creating a Scatter Plot Using matplotlib

Machine Learning Libraries

- Using scikit-learn
- Applying Box-Cox Transformation

Extracting, Transforming, and Loading Data

- Handling the Missing Values
- Performing Data Cleaning

Designing a Machine Learning Approach

- Performing Chi-Square Test
- Performing Two-Way ANOVA
- Calculating the Euclidean Distance between Two Series
- Performing Feature Selection Using Chi-Square Test

- Performing One-Way ANOVA
- Performing the Goodness of Fit Test

Developing Classification Models

- Performing Logistic Regression
- Performing Bagging
- Creating a Decision Tree
- Creating a Confusion Matrix
- Creating a Contingency Table

Developing Regression Models

- Performing Linear Regression on the Salary Dataset

Developing Clustering Models

- Performing K-Means Clustering

Here's what you get

25	**25**	**27**
LIVE LABS	**VIDEO TUTORIALS**	**MINUTES**

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