Python Machine Learning Course Online

Master the basics of machine learning, including regression analysis and classification algorithms, in this hands-on course. Develop the skills required to tackle real-world challenges using machine learning, with an emphasis on Python programming and key data science libraries.

Group classes in Live Online and onsite training is available for this course. For more information, email partnerships@vdci.edu or visit: https://vdci.edu/courses/python-machine-learning-course-online

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Course Outline

Fundamentals

Basic Regression Analysis

- Linear Regression
- Mean squared error
- Training set vs Test set
- Cross validation

Advanced Regression Analysis

- Multi-linear regression
- Feature engineering
- Overfitting

Classification

Logistic Regression

- Regression vs Classification
- Logistic Regression
- Sigmoid function

K-nearest Neighbors

- K-nearest neighbors
- Model-based vs memory-based
- Parametric vs non-parametric
- Evaluating performance

Decision Trees

Decision Trees
- Decision tree
- Interpretability
- Bias-variance tradeoff

Random forest
- Random forest
- Ensemble methods
- Hyperparameters

Final Portfolio Project