Python Machine Learning Bootcamp

Take a step beyond normal programming, into using algorithms that can independently learn patterns and make decisions. Machine learning skills are in high demand, as these algorithms now run the majority of trading on Wall Street and the product recommendations at big companies like Amazon, Spotify, and Netflix.

Group classes in NYC and onsite training is available for this course. For more information, email <u>nyc@careercenters.com</u> or visit: <u>https://www.careercenters.com/courses/python-machine-learning</u>

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



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Decision Trees

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- Decision tree
- Interpretability
- Bias-variance tradeoff

Random forest

- Random forest
- Ensemble methods
- Hyperparameters

Final Portfolio Project