

Data Science: Machine Learning Specialist

Materials & teaching in English



In 6 weeks you'll build, train, and improve machine learning models and finish with a portfolio of real-world projects.

Machine learning is one of the most in-demand skill sets in the tech industry right now. Companies across sectors are building systems that learn from data, and the demand for people who actually know how to develop and evaluate those systems is growing fast.

This course gives you a complete introduction to the field. You start with the fundamentals: cleaning and analyzing data with Python, and building the mathematical understanding behind the algorithms. From there, you move through the full machine learning workflow, from supervised and unsupervised learning to feature engineering and advanced model improvement techniques.

Throughout the course, you work on real datasets. You predict credit card fraud, classify medical data, cluster handwritten digits, and build recommender systems. Every project is something you can add to your

portfolio and walk through in a job interview.

The algorithms you learn are the ones that appear again and again in job postings: Linear and Logistic Regression, Support Vector Machines, Decision Trees, K-Means Clustering, Random Forests, and more. You learn not just how to apply them, but how to evaluate, tune, and improve them.

By the end, you will have worked through seven structured learning tracks with hands-on labs, built models on real-world data, and developed a solid understanding of how machine learning works in practice.

Machine learning skills are no longer reserved for people with a master's degree. What employers are looking for is people who can build and deliver. That is exactly what this course prepares you to do.

You will learn



Data Science Foundations

- Clean, analyze, and visualize data with Python
- Work with pandas and seaborn for real-world datasets
- Build your first data projects for your portfolio



Math for Machine Learning

- Understand probability, statistics, and linear algebra
- Apply calculus concepts to real-world data analysis
- Build the mathematical intuition behind ML algorithms



Supervised Learning

- Build and evaluate Linear and Logistic Regression models
- Work with Naive Bayes, SVM, KNN, and Decision Trees
- Predict outcomes on real data like fraud and census records



Feature Engineering

- Select features with filter and wrapper methods
- Transform numerical data to improve model performance
- Measure feature importance with regularization and trees



Unsupervised Learning

- Cluster data with K-Means, DBSCAN, and more
- Reduce dimensionality with PCA
- Recognize handwritten digits and classify telescope data



Communicating with Data

- Tune models with grid search and Bayesian optimization
- Build stronger models with Random Forests and boosting
- Build and deploy recommender systems with Python

The course is for you if you...

- ✓ want to work with data and machine learning and are looking for a structured path from the foundations all the way to advanced model building, with real projects along the way.
- ✓ have some experience with coding or data and want to develop practical machine learning skills that are directly applicable across tech, analytics, and AI-driven roles.

Course structure

The course includes self-paced online sessions and Labs. You also get access to a library of e-books..

Careercoach

You also can spar with Itucation's career coach regarding CV, application and job strategy. If you wish to take advantage of this offer, please send an email to kurser@itucation.dk



Upcoming courses

- Start every monday!

Information & Pris

Location	E-learning, Selfstudy
Classes	5 days a week
Duration	6 weeks
Price for applicants	Free for unemployed*
<small>*Free, if you fulfil the criteria for 6-week job-oriented training programs via the Jobcenter</small>	
Price for jobcenter:	Kr. 19.600 (ex. moms)
Sign-up	www.itucation.dk Or contact us on 7027 2784

Information til a-kasser og jobcentre

Regional positivliste

E-learningsturset er godkendt.

Se vores hjemmeside for listetitel og

listenumre.

Pris

Kr. 19.600 (ex. moms)

Ugepris: kr. 3.266,66 (ex. moms)

Betalingstilsagn sendes til

Itucation
Svanevej 22, 2400 København NV
kurser@itucation.dk (sikker mail)
CVR-nr.: 33248016
P-nr.: 1016378247