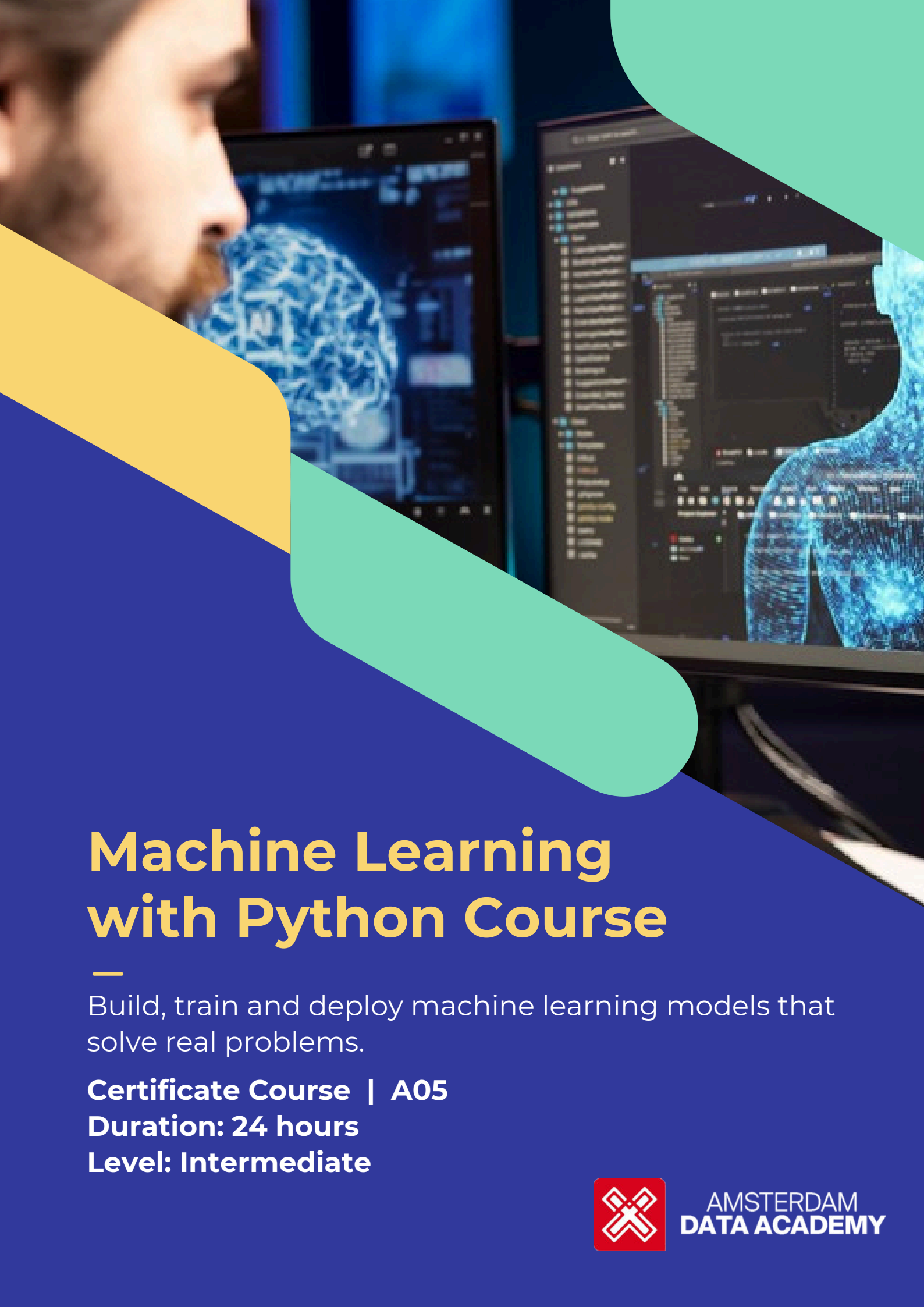




Machine Learning with Python Course

Build, train and deploy machine learning models that solve real problems.

Certificate Course | A05

Duration: 24 hours

Level: Intermediate



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WHAT YOU'LL LEARN

- Build classification and regression models using Python and scikit-learn
- Evaluate model performance with the right metrics
- Tune hyperparameters to improve model accuracy
- Prevent overfitting with cross-validation and regularisation
- Communicate model results to non-technical stakeholders
- Apply ML to a real-world business problem end-to-end



COURSE CONTENT

Module 1 — Machine Learning Foundations

- The ML pipeline: data → model → evaluation → deployment
- Overfitting, underfitting, and the bias-variance tradeoff

Module 2 — Regression & Classification

- Decision trees, random forests, and gradient boosting
- Model evaluation: accuracy, precision, recall, AUC

Module 3 — Clustering & Dimensionality Reduction

- K-means, DBSCAN, and hierarchical clustering
- Practical use cases: customer segmentation, anomaly detection



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AFTER THIS COURSE

You'll have built multiple ML models and completed a full end-to-end project. The ideal next step after A06 (Python) and the foundation for A16 (Deep Learning).

OFFICIAL CERTIFICATE

This course leads to an official ADA certificate at NLQF level 6, the nationally recognised qualification framework equivalent to a bachelor's degree. Your certificate proves a verified, professional level of knowledge and skills — valued by employers across the Netherlands.

Ready for your next step?

Book a free study-advice call

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