



Data Expert Bootcamp

Master both data science and data engineering in one intensive programme.

Bootcamp | B06

Level: Advanced

Study load: 216 hours

Certificate of Completion



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WHAT YOU'LL LEARN

- Master data science and data engineering fundamentals
- Program in Python and build ML & deep learning models
- Write complex SQL and manage data in Azure
- Build a modern data stack with dbt and cloud pipelines
- Apply ethical data practices throughout
- Complete data science and data engineering capstones



TARGET AUDIENCE

Who is this for

Career switchers and professionals who want to become experts in both data science and data engineering.

Prerequisites

Basic computer skills. No prior data or programming experience required.

Roles after

Data Scientist · Data Engineer · Analytics Engineer



CURRICULUM



A03 — Fundamentals of Data & AI

Core concepts of data science and AI, and where data-driven methods add value.

A24 — AI Literacy

Evaluate AI critically; recognise bias and apply GDPR and the EU AI Act.

A06 — Programming with Python

Reproducible Python with pandas and NumPy for data analysis.

A05 — Machine Learning with Python

Build, evaluate and tune ML models with scikit-learn.

A16 — Deep Learning with Python

Train deep learning models for image and text tasks with PyTorch.



A25 — SQL

Complex SQL with JOINS, CTEs and window functions.

A14 — Data Fundamentals (Azure)

Core Azure data services; DP-900 exam-ready.

A15 — Fundamentals of a Data Stack

Build a modern data stack with dbt and a cloud warehouse.

A52 / A53 — Final Assignments

Capstone projects in both data science and data engineering.



ASSESSMENT FRAMEWORK

- Assessment is competency-driven and rubric-based (NLQF level 6), with an independent examiner for every module.
- What you'll be assessed on: Two final assignments — A52 Data Science and A53 Data Engineering.
- Optional exam — DP-900 Microsoft Azure Data Fundamentals.
- Full method, rubrics and resit procedure:
amsterdamdataacademy.com/examination-regulations





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AFTER THIS BOOTCAMP

You'll master both data science and data engineering end-to-end, with capstone projects across the full data lifecycle.

OFFICIAL CERTIFICATE

After completing the Data Expert Bootcamp you receive an official ADA Certificate of Completion. This bootcamp is part of ADA's NLQF level 6 accredited programme — the nationally recognised qualification framework equivalent to a bachelor's degree — recognised by employers across the Netherlands.

Ready for your next step?

Book a free study-advice call

amsterdamdataacademy.com/study-advice

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