

Local Large Language Model Specialist

Design, build and govern your own private AI environment.



1 year

An evening programme with one session per week on average.

Hands-on project

Build one complete AI implementation case throughout the year.

Recognised certificate

Successfully complete all components to earn the official certificate.

From local model to enterprise AI architecture

Installing a local language model is only the beginning. Organisations need secure architectures that connect models, business data, workflows and human oversight. In this programme, you learn how local LLMs, RAG and AI agents work together in a coherent AI ecosystem.

You build a complete implementation case and make informed decisions about deployment, data flows, governance and compliance. Practical work with open-source tools is combined with GDPR, the EU AI Act and stakeholder communication, taking your solution from proof of concept to defensible enterprise architecture.

In short

You learn to design, deploy and defend private or hybrid AI solutions that create measurable value while protecting sensitive data.

From AI concept to governed solution

The programme combines local and hybrid AI, RAG, agent orchestration, governance, compliance and fine-tuning in one continuous implementation project.

01 Foundations of local and hybrid AI

Compare local, cloud and hybrid approaches, evaluate models and build core infrastructure with LM Studio and Docker.

02 RAG and enterprise knowledge

Connect models to business data using embeddings, semantic search, vector databases and Qdrant.

03 AI agents and orchestration

Build Dify workflows, tool-calling agents, MCP integrations, multi-agent systems and human approval steps.

04 Compliance and AI governance

Apply GDPR-first decisions, EU AI Act risk classification, DPIAs, audit trails, system cards and governance workflows.

05 Fine-tuning and final project

Explore LoRA and QLoRA, refine your architecture and defend deployment, governance and compliance decisions.

Is this programme right for you?

A strong fit if you...

- work in IT, data, automation or AI;
- lead innovation or implementation projects;
- advise clients or internal stakeholders;
- want secure, deployable AI solutions.

Practical information

- Programming experience is not required.
- Comfort with IT configuration is expected.
- Most sessions are live online.
- First and final sessions are in Antwerp.
- A laptop with at least 16 GB RAM is advised.

VIEW CURRENT DATES, PRICE AND ENROLMENT

syntra-ab.be/opleidingen/local-large-language-model-specialist-e-learning-and-english

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