

FLAGSHIP PROGRAM · BEGINNER-FRIENDLY

Full Stack AI & Cloud Engineering Program

One year from workplace AI basics to production GenAI engineering on AWS. You learn governance, private LLMs, and build multiple capstones for the German job market.

ONE PROGRAM · FOUR MODULES

	AI & Automation	M1-3
	Full-Stack Software	M4-6
	AI Systems	M7-9
	Cloud GenAI	M10-12



Free!

100% tuition-free

with a Bildungsgutschein from the Agentur für Arbeit or Jobcenter, for eligible learners in Germany.*



Certification preparation

Structured preparation for Google AI and AWS certifications, plus your Ai School / StartSteps completion certificate.

12 months full-time

Monday to Friday · ~2,400 teaching units · four modules, each ending with a capstone project.



LANGUAGE OF INSTRUCTION

English

German for career and job-market topics



LOCATION

100% online

Instructor-led, with daily practical labs



DEVICES

Laptop provided

For the duration of the course

*Eligibility is decided individually by the employment agency — Ai School cannot guarantee approval.

A year that takes you from using AI to building with it.

One program in four modules: from workplace AI and automation to cloud GenAI engineering. You start from the foundations — no programming experience needed — and finish with a portfolio employers can review.

IN THIS DOCUMENT **03** Your year, week by week **04** Curriculum, module by module **06** How you learn
07 Career & certificates **08** How to start

 DURATION 12 months, full-time Monday to Friday	 VOLUME ~2,400 teaching units ~240 instruction days	 FORMAT Live online Instructor-led	 GROUP SIZE Max. 12 participants Per group
 LANGUAGE English instruction German for career topics	 LEVEL Beginner No coding background required	 LAPTOP Provided For the duration of the course	 COST 100% tuition-free With a Bildungsgutschein, if eligible*

Who it is for

- Career changers with no tech background who want to become AI and cloud engineers
- Job seekers in Germany targeting AI, software, or cloud GenAI roles
- People who can commit to an intensive full-time year and want to build projects every week

What makes it different

- AI-first, engineering-grade**
You build real applications and systems while using AI tools responsibly — and you learn to verify AI-assisted work with tests, reviews, and evaluation.
- Governance from day one**
GDPR, the EU AI Act, and when to involve the works council and data protection officer start in month one — the way AI is actually adopted in German companies.
- Proof every twelve weeks**
Every module ends with a capstone week. By month twelve you have a portfolio employers can review, not just a certificate.

By the end of the year, you can

- Work with AI responsibly, with GDPR and the EU AI Act in view
- Design RAG and agent systems, and evaluate quality and cost
- Judge when a private, self-hosted LLM is the right call
- Build and deploy full-stack software with CI/CD
- Run GenAI workloads on AWS with MLOps and cost discipline
- Show a year of project work, documented for employers

Your year, week by week

One program, four modules of twelve weeks. Each module builds on the one before, and each ends with a capstone you demo and add to your portfolio.



How a module works

WEEKS 1-11

Learn and build

Live input every morning, labs every afternoon. Each module closes with a short mini-project that pulls its topics together.

FINAL WEEKS

Certification prep

Exam preparation happens inside the program hours, alongside your project work.

WEEK 12

Capstone week

Finish, test, and demo your project. You get feedback and add it to your portfolio.



What you learn, module by module

Each module is 3 months and 600 teaching units, split into three units. Units end with a short mini-project; each module ends with a capstone week.

MODULE 1 OF 4 • MONTHS 1-3 • 600 TEACHING UNITS

01 AI & Automation

Use AI productively and safely at work, and automate real workflows.

1.1 • Weeks 1-4

AI productivity, ethics & digital workflows

- Generative AI basics and task-based prompting
- Verifying AI output: bias and hallucinations
- GDPR fundamentals, vendor privacy policies, EU AI Act
- Data literacy, KPIs, and workflow mapping

Mini-project • AI-assisted weekly workflow pack

1.2 • Weeks 5-8

Automation, APIs & no-code systems

- n8n automation patterns and reliability
- REST, JSON, and webhooks in plain language
- Dashboards and a first vibe-coding lab
- Intro to Microsoft Power Automate

Mini-project • Multi-step automation + KPI dashboard

1.3 • Weeks 9-12

Applied project

- Problem framing, stakeholders, and measurable KPIs
- Research and evidence with AI tools
- Builder lab with v0, Lovable, and Cursor

Prep • Google AI Professional Certificate

Capstone • Module 1 capstone demo

MODULE 2 OF 4 • MONTHS 4-6 • 600 TEACHING UNITS

02 Full-Stack Software

Build, test, and deploy web applications with containers and CI/CD.

2.1 • Weeks 13-16

Frontend with AI-assisted development

- JavaScript, TypeScript, and Git on the command line
- AI pair programming — with verification
- React: components, state, routing
- Responsive UI, accessibility, and testing

Mini-project • A small React app with tests and README

2.2 • Weeks 17-21

Backend, data, Docker & CI/CD

- Node.js, Express, and REST API design
- PostgreSQL and Supabase data models
- Authentication, secrets, and Docker
- AI APIs and GitHub Actions pipelines

Mini-project • Backend project with containers and CI

2.3 • Weeks 22-24

Full-stack apps & AWS basics

- Observability and optimization
- AWS fundamentals and deployment
- Git Flow, code reviews, and team delivery

Prep • AWS Certified Cloud Practitioner

Capstone • Module 2 capstone demo

Modules 3 and 4 continue on the next page →

MODULE 3 OF 4 · MONTHS 7-9 · 600 TEACHING UNITS

03 AI Systems

Connect systems and ship RAG and agent services that are reliable and affordable.

3.1 · Weeks 25-28

Integration & reliability

- Systems thinking: contracts and failure modes
- Events, webhooks, retries, and queues
- Advanced n8n orchestration
- Logging, alerts, and runbooks

Mini-project · A reliable integration with test evidence

3.2 · Weeks 29-32

RAG, agents, evaluation & cost

- Chunking, embeddings, and vector databases
- Agents and tools with an audit trail
- LLM evaluation and token cost modeling
- Deploying and monitoring AI services with FastAPI

Mini-project · RAG microservice + eval report + cost estimate

3.3 · Weeks 33-36

Capstone with governance

- Architecture and data-flow design
- Security and governance for AI systems
- DPIA-style checklist and hardening

Prep · AWS Certified AI Practitioner

Capstone · Module 3 capstone demo

MODULE 4 OF 4 · MONTHS 10-12 · 600 TEACHING UNITS

04 Cloud GenAI

Run GenAI on AWS and on private infrastructure — with MLOps and cost discipline.

4.1 · Weeks 37-40

Engineering, data, ML & local LLMs

- Python for AI engineering: testing, typing, CI
- Data engineering foundations
- ML basics and model evaluation
- Private LLMs with Ollama and vLLM

Mini-project · Public API vs. local LLM comparison

4.2 · Weeks 41-44

AWS GenAI, MLOps & governance

- MLOps / LLMops with Bedrock and SageMaker
- Infrastructure as code with Terraform
- Observability, budgets, and incident response
- Security, access control, EU AI Act readiness

Mini-project · Threat model + compliance one-pager

4.3 · Weeks 45-48

Final capstone

- Architecture, SLOs, and a cost model
- Two build sprints: hardening, evaluation, load
- Demo, portfolio, and your employer story

Capstone · Final capstone demo



Why this order

Each module builds on the one before. You automate before you code, code before you build AI systems, and build systems before you run them in the cloud — so nothing in month ten is new ground without a foundation.

Topics and tools are indicative and updated as the industry changes.

How you learn

You learn full-time in a real online classroom, with instructors and peers. Mornings are live. Afternoons are for labs, projects, and practice.

A typical day



You are not learning alone

Mentoring

Instructor feedback, one-on-one mentoring, review sessions, and extra practice when a topic is hard.

Assessment

Labs with feedback, unit mini-projects, and a capstone demo at the end of every module.

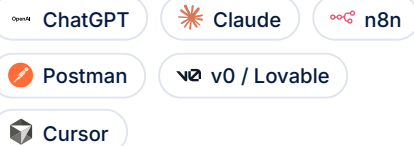
Completion certificate

Meet the attendance, assignment, project, and assessment requirements to receive your Ai School / StartSteps certificate.

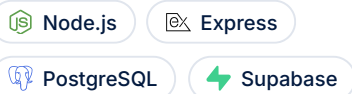
Your toolbox

Tools are examples. We update the stack as the industry changes.

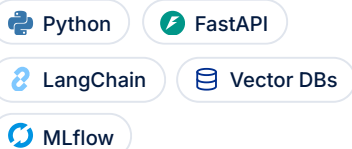
AI & AUTOMATION



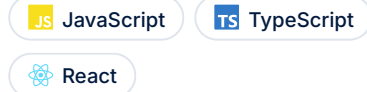
BACKEND & DATA



AI ENGINEERING



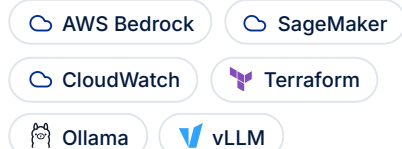
FRONTEND



DELIVERY



CLOUD & PRIVATE AI



Built for the German job market

The program is designed to build job-relevant skills and employer-checkable project evidence. We help you package your work into a clear portfolio and career story.



Certification preparation

MODULE 1	Google AI Professional Certificate	Google · Coursera
MODULE 2	AWS Certified Cloud Practitioner	Amazon Web Services
MODULE 3	AWS Certified AI Practitioner	Amazon Web Services
MODULE 4	Advanced AWS GenAI certification	Optional stretch goal
ALL FOUR MODULES	Ai School / StartSteps completion certificate	For every completed module

We prepare you for external exams; passing cannot be guaranteed and is not required to complete the course.

Roles this program can prepare you for

Junior Full-Stack Developer

AI Application Engineer

GenAI Engineer

Cloud AI Engineer

Automation / Integration Engineer

AI-assisted Software Developer

Your readiness depends on your effort, project quality, language level, and prior experience.

Your portfolio after twelve months

- ✓ Workflow automations with KPI dashboards
- ✓ Full-stack web applications with tests and CI/CD
- ✓ RAG and agent prototypes with evaluation reports
- ✓ Deployment evidence, runbooks, and documentation
- ✓ A final cloud GenAI capstone

Career support

- ✓ CV and LinkedIn improvement
- ✓ Portfolio preparation and project storytelling
- ✓ Interview practice and soft skills
- ✓ Job-search strategy for Germany

Start your year

As early as possible. Funding decisions and course preparation take time — start before the course date gets close.

1

Apply or book a free call

Tell us your goals on aischool.de. We help you choose the right program and tell you the next start date.

2

Orientation conversation

We look at your background, goals, and funding situation together.

3

Talk to your agency

Book an appointment at your Agentur für Arbeit or Jobcenter. We give you the course documents.

4

Start with your cohort

When your funding is in place, you join your group. We provide a laptop for the course.

What you need

- ✓ No programming experience — the program starts from the foundations
- ✓ Comfortable following technical instruction in English (B1+ is a useful baseline)
- ✓ Time for full-time online learning, Monday to Friday, for twelve months
- ✓ Motivation, consistency, and digital confidence
- ✓ For Bildungsgutschein funding: living in Germany and registered with Agentur für Arbeit or Jobcenter

Good to have

- ✓ A clear goal — AI at work, software, automation, or cloud
- ✓ Readiness to prepare documents and a Jobcenter conversation
- ✓ A habit of practising — you build something every week

For your Agentur für Arbeit / Jobcenter appointment

Show these details to your case worker.

MEASURE

Full Stack AI & Cloud Engineering mit individuellem Eintritt

PROVIDER

StartSteps Digital Education GmbH, Berlin

APPROVAL

AZAV-approved measure · CERTQUA · Reg. no. 2026M101555-10001

SCOPE

4 modules × 600 UE = 2,400 UE · fully online

Questions? Let's talk.

Book a free advisory call or write to us. We usually reply within 1–2 business days.

PROGRAM & CURRICULUM

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FUNDING & PAPERWORK

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Scan for the program page and application

*Eligibility is decided individually by the employment agency — Ai School cannot guarantee approval.

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