

NINE-MONTH PATHWAY · BEGINNER-FRIENDLY

# AI Systems & Automation

## Developer Program

Build a nine-month portfolio from workplace AI through full-stack apps to reliable AI systems with RAG and agents. Multiple capstones and recognized certification prep included.

ONE PROGRAM · THREE MODULES

-  AI & Automation M1-3
-  Full-Stack Software M4-6
-  AI Systems M7-9

**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, AWS Cloud Practitioner, and AWS AI Practitioner, plus your Ai School / StartSteps completion certificate.

### 9 months full-time

Monday to Friday · ~1,800 teaching units · three modules, each ending with a capstone.



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.

# Nine months from workplace AI to AI systems that run.

Three modules: workplace AI and automation, then full-stack software, then AI systems with RAG, agents, evaluation, and operations. Each module adds a capstone to your portfolio.

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[07](#) Career & certificates   [08](#) How to start

|                                                                                                                                                             |                                                                                                                                                          |                                                                                                                                                      |                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>DURATION</b><br><b>9 months, full-time</b><br>Monday to Friday         |  <b>VOLUME</b><br><b>~1,800 teaching units</b><br>~180 instruction days |  <b>FORMAT</b><br><b>Live online</b><br>Instructor-led              |  <b>GROUP SIZE</b><br><b>Max. 12 participants</b><br>Per group                     |
|  <b>LANGUAGE</b><br><b>English instruction</b><br>German for career topics |  <b>LEVEL</b><br><b>Beginner</b><br>No coding background required       |  <b>LAPTOP</b><br><b>Provided</b><br>For the duration of the course |  <b>COST</b><br><b>100% tuition-free</b><br>With a Bildungsgutschein, if eligible* |

## Who it is for

-  Career changers without a coding background who want the full technical route
-  Job seekers aiming at automation, integration, or AI systems roles
-  People who want to build AI apps and agents, not only use AI tools

## What makes it different

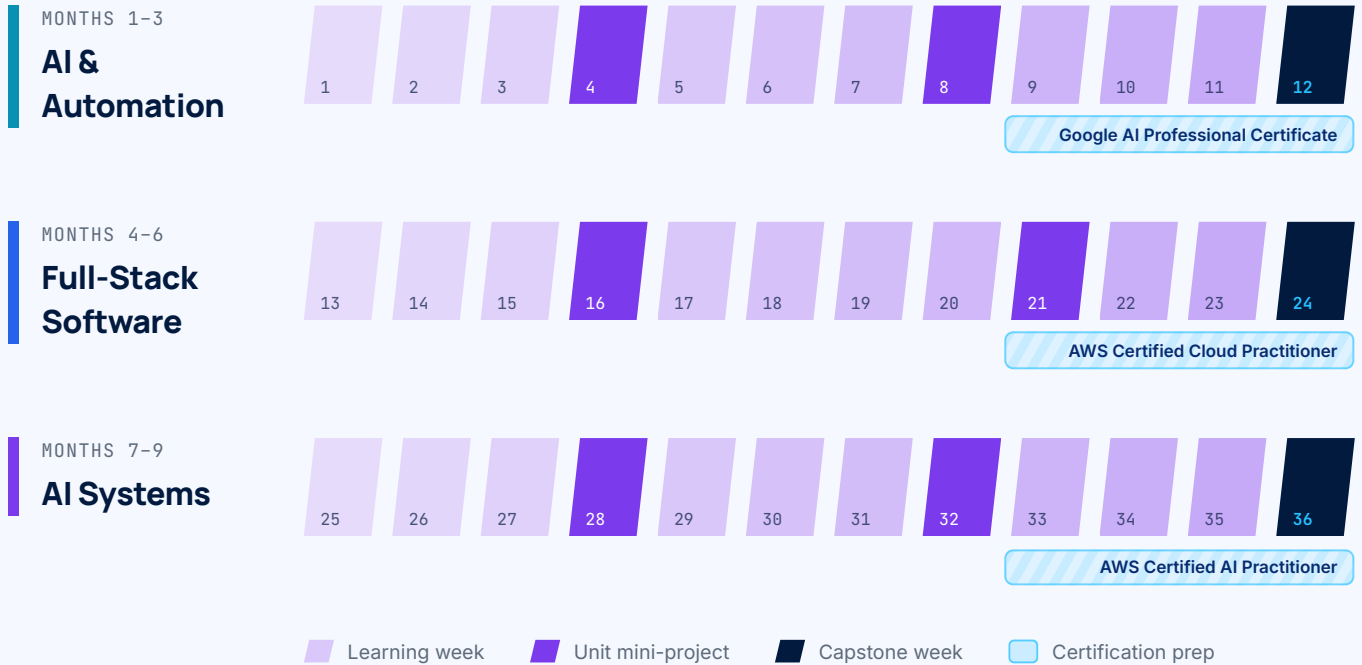
- 01 Systems, not demos**  
You learn retries, queues, logging, runbooks, evaluation, and cost — the things that separate a prototype from something a company can run.
- 02 Governance from day one**  
GDPR, the EU AI Act, and when to involve the works council and data protection officer start in month one — the way AI is actually adopted in German companies.
- 03 Three capstones, one portfolio**  
A workplace automation, a deployed full-stack app, and an AI system with an evaluation report — each demoed and documented.

## By the end of the program, you can

-  Adopt AI at work responsibly and explain it to stakeholders
-  Connect systems with webhooks, retries, and queues that hold up
-  Monitor an AI service and write the runbook for it
-  Build and deploy full-stack software with tests and CI/CD
-  Build RAG and agent services, then evaluate quality and cost
-  Show three capstones with documentation employers can check

# Your nine months, week by week

One program, three 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 unit 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.

WEEK 12

#### Capstone

A role-based AI project with a measurable outcome

WEEK 24

#### Capstone

A team-built full-stack app, deployed to AWS

WEEK 36

#### Capstone

A production-style AI system with a runbook

# 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 3 • 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 3 • 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

Module 3 continues on the next page →

MODULE 3 OF 3 • 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 • Final capstone demo



### Why this order

Each module builds on the one before. You automate before you code, and code before you build AI systems — so when you reach RAG, agents, and evaluation in month seven, the APIs, containers, and tests underneath them are already familiar.

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.

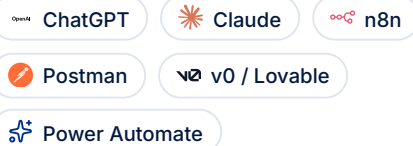
### ■ Completion certificate

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.

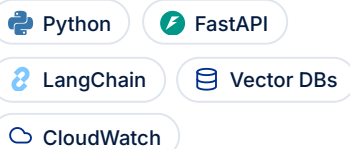
### AI & AUTOMATION



### BACKEND & DATA



### AI ENGINEERING



### FRONTEND



### DELIVERY



# Built for automation and AI systems roles

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    | <b>Google AI Professional Certificate</b>            | Google · Coursera          |
| MODULE 2    | <b>AWS Certified Cloud Practitioner</b>              | Amazon Web Services        |
| MODULE 3    | <b>AWS Certified AI Practitioner</b>                 | Amazon Web Services        |
| MODULES 1-3 | <b>Ai School / StartSteps completion certificate</b> | 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 AI Application Engineer

AI Automation Workflow Engineer

Integration Developer (APIs)

Automation Engineer

Junior Full-Stack Developer with AI focus

## Your portfolio after nine months

- ✓ A workplace automation capstone with a measurable outcome
- ✓ A deployed full-stack application with CI/CD
- ✓ A RAG or agent system with an evaluation report
- ✓ Runbooks, monitoring evidence, and documentation

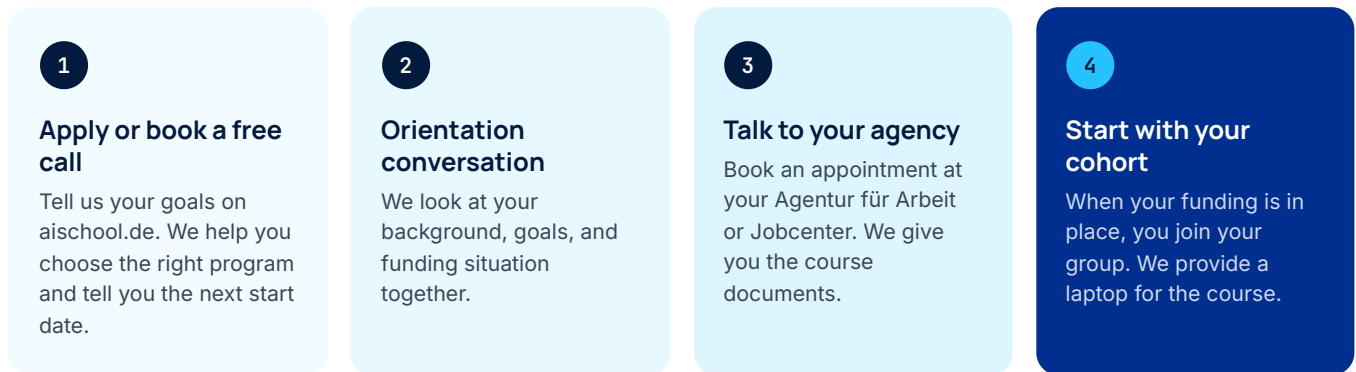
## Career support

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

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

# Start your program

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



## 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 nine 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 — automation, integration, or AI systems work
- ✓ 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**

#### MODULES IN THIS PROGRAM

**Bausteine 1–3: AI and Automation Skills for Professionals · AI Software Development · AI Systems & Automation Development**

#### PROVIDER

**StartSteps Digital Education GmbH, Berlin**

#### APPROVAL

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

#### SCOPE

**3 × 600 UE = 1,800 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

[Zia@aischool.de](mailto:Zia@aischool.de)

#### 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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