



Enterprise Computing Solutions - Education Services

## TRAINING OFFERING

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**Sie erreichen uns unter**

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|--------------|---------------|---------------|
| <b>CODE:</b> | <b>LÄNGE:</b> | <b>PREIS:</b> |
| AIC_AP-111   | 4 Hours       | €170.00       |

## Description

### Supercharge coding with AI+ Vibe Coder™ for smarter, faster creation

- **Beginner-Friendly Approach:** Designed for aspiring creators eager to explore AI-assisted coding with ease and confidence
- **Interactive Learning Journey:** Blends core coding concepts, intuitive AI tools, and hands-on practice to build real problem-solving skills
- **Project-Driven Growth:** Provides guided exercises and practical projects to help you build, refine, and showcase your AI-powered coding talents

## Why This Certification Matters

- **Empowers Intelligent Development:** Learn to integrate AI into coding workflows to build smarter, more adaptive applications.
- **Boosts Productivity:** Automate repetitive programming tasks and streamline software development using AI-driven tools and assistants.
- **Bridges Creativity and Code:** Combine technical expertise with creative problem-solving to design innovative, human-centered digital experiences.
- **Future-Proofs Your Career:** Gain in-demand AI coding skills that are reshaping industries and redefining the developer's role.
- **Prepares for Real-World Impact:** Apply AI in real coding environments to develop scalable, intelligent, and efficient solutions for diverse domains.

## At a Glance: Course + Exam Overview

- Included: Self-paced course + Official exam + Digital badge
- Delivery: Hands-on, projects, case studies
- Outcome: Industry-recognized credential + hands-on experience

## The following tools will be explored in this course:

- Python
- TensorFlow
- PyTorch
- GitHub Copilot
- OpenAI Codex
- Hugging Face Hub
- LangChain
- FastAPI
- VS Code
- Jupyter Notebooks
- Pandas
- NumPy
- Scikit-learn
- Docker
- Streamlit
- API Integration Tools

- Prompt Engineering Frameworks
- Automation SDKs
- Version Control Systems (Git)

### **What's Included (One-Year Subscription + All Updates):**

- High-Quality Videos, E-book (PDF & Audio), and Podcasts
- AI Mentor for Personalized Guidance
- Quizzes, Assessments, and Course Resources
- Online Proctored Exam with One Free Retake
- Comprehensive Exam Study Guide

### **Lernziel**

- AI-Powered Programming
- Machine Learning Integration
- Generative Code Development
- Natural Language Coding
- Automated Debugging and Testing
- Data-Driven Application Design
- Prompt Engineering
- Algorithm Optimization
- AI Workflow Automation
- Ethical and Responsible AI Development

### **Zielgruppe**

- Aspiring Programmers: Beginners eager to start their coding journey with the power of AI-driven learning and automation.
- Tech Enthusiasts: Individuals fascinated by how AI transforms coding, app development, and digital innovation.
- Students and Graduates: Learners seeking a practical foundation in programming enhanced by real-world AI applications.
- Career Switchers: Professionals from non-technical backgrounds looking to enter the tech industry through AI-assisted coding.
- Entrepreneurs and Creators: Innovators aiming to build smarter products, automate processes, and bring AI-powered ideas to life.

### **Voraussetzungen**

- Basic Computer Skills: Comfortable with operating systems and files.
- Mathematics Fundamentals: Understanding of algebra and basic statistics.
- Logical Thinking: Ability to approach problems step by step.
- Programming Curiosity: Interest in learning coding from scratch.
- English Proficiency: Ability to follow technical instructions clearly.

### **Inhalt**

#### **What You'll Learn**

#### **Module 1: Introduction to Vibe Coding & AI Tools**

- 1.1 What is Vibe Coding?
- 1.2 Evolution of AI in Software Development – Low Code vs No Code vs Vibe Coding
- 1.3 Overview of Common AI Coding Tools by Functionality
- 1.4 SDLC for a Vibe Coding Product
- 1.5 Hands-on Lab: Familiarizing Learners with Multiple AI Coding Tools
- 1.6 Case Studies

#### **Module 2: Prompting for Code – Basics & Best Practices**

- 2.1 Anatomy of a Good Prompt
- 2.2 Prompt Types – Instructive, Descriptive, Iterative
- 2.3 Prompting Patterns – Zero-Shot, Few-Shot, Chain-of-Thought
- 2.4 Hands-on Lab: Practice Zero-Shot, Few-Shot, and Chain-of-Thought Prompting
- 2.5 Use-Case 1: Creating a Python Calculator
- 2.6 Use-Case 2: Optimizing AI-generated Code Using Different Prompt Types

### **Module 3: Debugging & Testing via AI**

- 3.1 Reviewing and Refining AI-generated Code
- 3.2 Prompting for Bug Fixes and Test Coverage
- 3.3 Using AI-generated Unit Testing
- 3.4 Detecting Hallucinations and Unsafe Code
- 3.5 Hands-on Lab: AI-Assisted Debugging and Unit Testing
- 3.6 Activity Section

### **Module 4: Building a Simple Full-Stack App with Prompts**

- 4.1 Planning the App: Frontend + Backend
- 4.2 Using IDEs and Code Generators to Scaffold Code
- 4.3 Connecting Components Using Natural Language
- 4.4 Deploying and Testing the MVP in Simulated Environment
- 4.5 Hands-on Lab: Building and Connecting the Frontend and Backend for Contact Form Submission
- 4.6 Hands-on Lab: Building a Standalone Desktop Calculator Application Using Tkinter
- 4.7 Hands-on Assignment 1: Task Management System – Full-Stack Development Using Prompts

### **Module 5: Code Ethics, Security, and AI Limits**

- 5.1 AI Limitations and Biases
- 5.2 Prompt Injection and Mitigation Strategies
- 5.3 Data Privacy and Secure Coding
- 5.4 Responsible Use of AI in Production
- 5.5 Hands-on Lab: Build Awareness of AI Limitations and Responsible Practices

### **Module 6: Capstone Project – Prompt-Driven App**

- 6.1 Apply All Learned Skills in a Real-World Project
- 6.2 Collaborate and Iterate Using AI Tools
- 6.3 Demonstrate End-to-End Development Using Prompts
- 6.4 Capstone Project Use Case: AI-Powered To-Do List Application
- 6.5 Capstone Project Use Case: AI-Powered Note-Taking Desktop App
- 6.6 Assignments

## **Test und Zertifizierung**

### **Exam Details**

- Duration: 90 minutes
- Passing Score: 70% (35/50)
- Format: 50 multiple-choice/multiple-response questions
- Delivery Method: Online via proctored exam platform (flexible scheduling)

### **Exam Blueprint:**

- Introduction to Vibe Coding & AI Tools – 15%
- Prompting for Code – Basics & Best Practices – 15%
- Debugging & Testing via AI – 15%
- Building a Simple Full-Stack App with Prompts – 20%
- Code Ethics, Security, and AI Limits – 20%
- Capstone Project – Prompt-Driven App – 15%

## **Kurstermine**

| Datum       | Lokation | Time Zone | Sprache | Type                | Durchführungsgarantie | PREIS   |
|-------------|----------|-----------|---------|---------------------|-----------------------|---------|
| 01 Jan 0001 |          |           | English | Self Paced Training |                       | €170.00 |

## Zusätzliche Information

Diese Schulung ist auch als Vor-Ort-Schulung verfügbar. Bitte kontaktieren Sie uns, um mehr zu erfahren.