AI+ Video™(AVIDEO)

ID AVIDEO **Preis** CHF 995.– (exkl. MwSt.) **Dauer** 1 Tag

Zielgruppe

- Video Creators and Editors: Professionals looking to integrate AI tools to automate editing, enhance visuals, and speed up production.
- Filmmakers and Producers: Those aiming to explore intelligent video generation, virtual production, and data-driven storytelling.
- Content Creators and Influencers: Individuals seeking to elevate their visual content with AI-powered creativity and personalized video experiences.
- Designers and Animators: Creatives who want to merge motion design with AI-driven effects and smart visual enhancements.
- Tech Enthusiasts and Innovators: Learners eager to understand how AI is transforming the future of video creation and media technology.

Voraussetzungen

Basic Video Editing Skills, Understanding of AI Concepts, Familiarity with Data Analytics, Experience with Content Creation.

Kursziele

- Future-Proof Your Skills : Stay ahead in a rapidly evolving industry where AI-driven video creation is becoming the new standard.
- Boost Creative Efficiency : Learn to automate editing, enhance visuals, and streamline production workflows using intelligent video tools.
- Master Emerging Technologies : Gain hands-on experience with AI techniques shaping the future of visual storytelling and digital media.
- Increase Career Opportunities : Stand out to employers and clients seeking professionals skilled in next-gen video innovation and automation.
- Bridge Art and Technology : Combine creative vision with AI-powered precision to produce cinematic experiences that captivate and inspire.

Kursinhalt

Module 1: Foundation of AI in Video Integration

- 1.1 Basics of Video Processing
- 1.2 Introduction to AI in Video
- 1.3 Toolkits and Framework
- 1.4 Use Case: AI-enhanced Video Compression for Streaming Platforms
- 1.5 Case Study: YouTube’s AI-Driven Transcoding System

Module 2: Preparing Video Data for AI

- 2.1 Data Preparation for AI Models
- 2.2 Preprocessing and Augmenting Frames
- 2.3 Storage and Workflow Management
- 2.4 Use Case: Building AI-ready Video Datasets for Autonomous Driving Applications
- 2.5 Case Study: Tesla’s In-house Pipeline for Labeling Driving Scenarios across Multiple Geographies using Video Footage
- 2.6 Hands-On: Video Annotation using CVAT Tool, and Organizing them for Model Training

Module 3: Machine Learning for Video Analysis

- 3.1 Video Classification and Tagging
- 3.2 Object Detection and Movement Tracking
- 3.3 Action and Behavior Recognition
- 3.4 Use Case: Smart Surveillance Systems Detecting Abandoned Objects in Real Time
- 3.5 Case Study: Dubai Smart City’s AI Implementation for Object Recognition
- 3.6 Hands-On: Train YOLOv8 on Sample Security Footage to Detect and Track Objects

Module 4: Generative AI in Video

- 4.1 Generating Synthetic Video with GANs
- 4.2 AI-Driven Animation and Avatars
- 4.3 Ethical Use of Generative Content
- 4.4 Use Case: Auto-Generation of Product Explainer Videos using Avatars and Synthesized Narration
- 4.5 Case Study: Synthesia’s Solution Enabling Businesses to Create AI-Driven Training and Marketing Videos
- 4.6 Hands-On: Generate a Deepfake or AI Avatar using AKOOL, and Explore Face Alignment and Identity Swapping

Module 5: Enhancing Video with AI

- 5.1 Super-Resolution and Restoration
- 5.2 Real-Time Video Enhancement
- 5.3 Making Video More Inclusive
- 5.4 Use Case: Streaming Platforms using AI to Enhance Resolution and Reduce Latency for Mobile Users.
- 5.5 Case Study: DeOldify's Impact in Reviving Historical Video Archives by Upscaling and Colorizing Black-and-White Footage.
- 5.6 Hands-On: Use AI4Video to Enhance a Sample Low-Resolution Black-and-White Video and Visualize Improvement

Module 6: Interactive and Immersive AI Video

- 6.1 AI in AR and Mixed Reality
- 6.2 Intelligent Video Editing
- 6.3 Viewer Engagement & Adaptation
- 6.4 Use Case: Live Sports Broadcasters using AR to Overlay Player Stats during Gameplay
- 6.5 Case Study: NFL and AWS Collaboration to Deliver Real-Time Performance Insights via Augmented Visuals.
- 6.6 Hands-On: Creating a Highlight Video from a Video Clip using Clipchamp

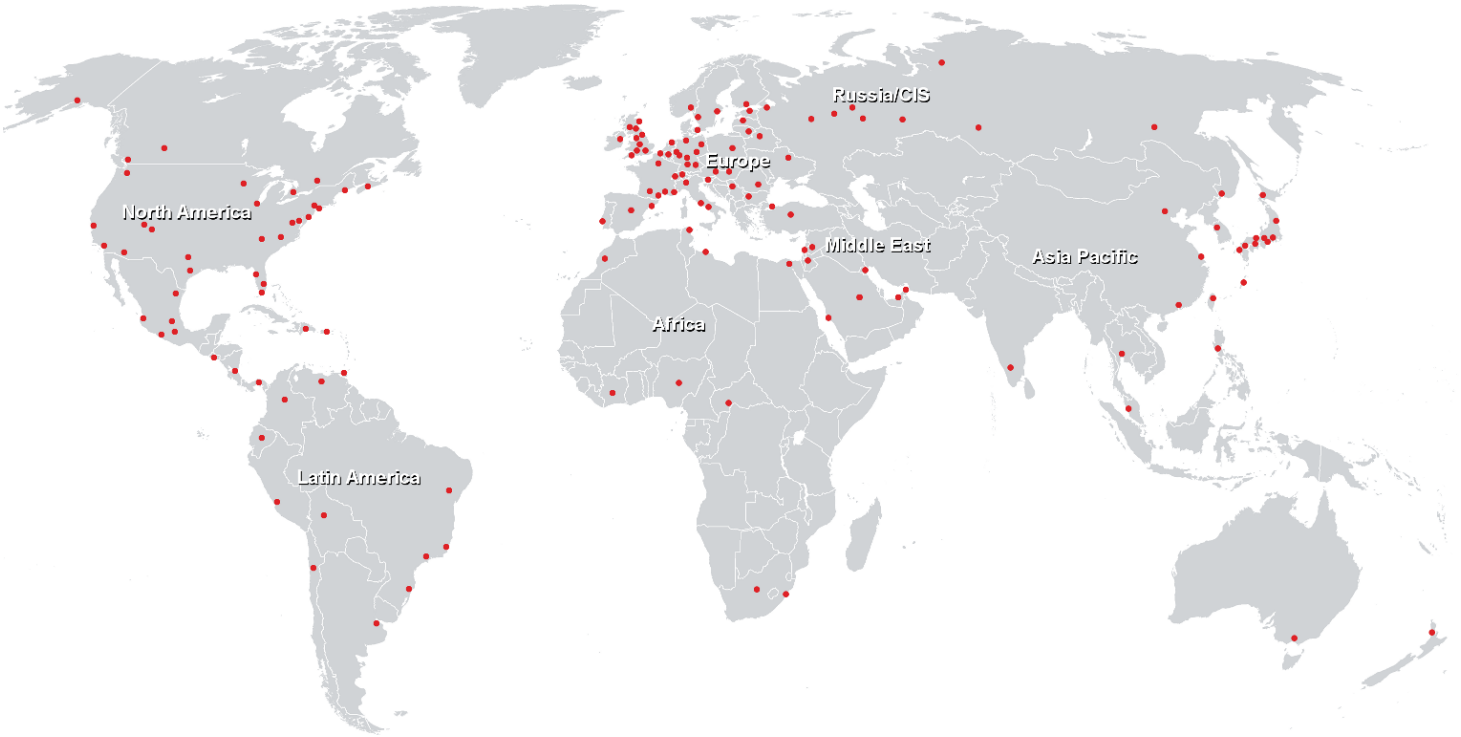
Module 7: AI in Video Surveillance and Compliance

- 7.1 Security and Monitoring Systems
- 7.2 Automated Content Moderation
- 7.3 Addressing Privacy and Ethics
- 7.4 Use Case: Automated Real-Time Access Control in Corporate Offices Using Facial Authentication.
- 7.5 Case Study: Amazon Go's Cashier-less Stores Using Computer Vision for Security and Consumer Behavior Tracking
- 7.6 Hands-On: Implement Facial Detection and Access Control Simulation using OpenCV and a Basic Recognition Model

Module 8: Future of AI+ Video

- 8.1 Trends and Emerging Technologies
- 8.2 AI Applications by Industry
- 8.3 Careers and Professional Growth

Weltweite Trainingscenter



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