AI+ Video Practitioner™(AVIDEO)

ID AVIDEO **Prix** CHF 995,– (Hors Taxe) **Durée** 1 jours

A qui s'adresse cette formation

- 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.

Pré-requis

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

Objectifs

- 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.

Contenu

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

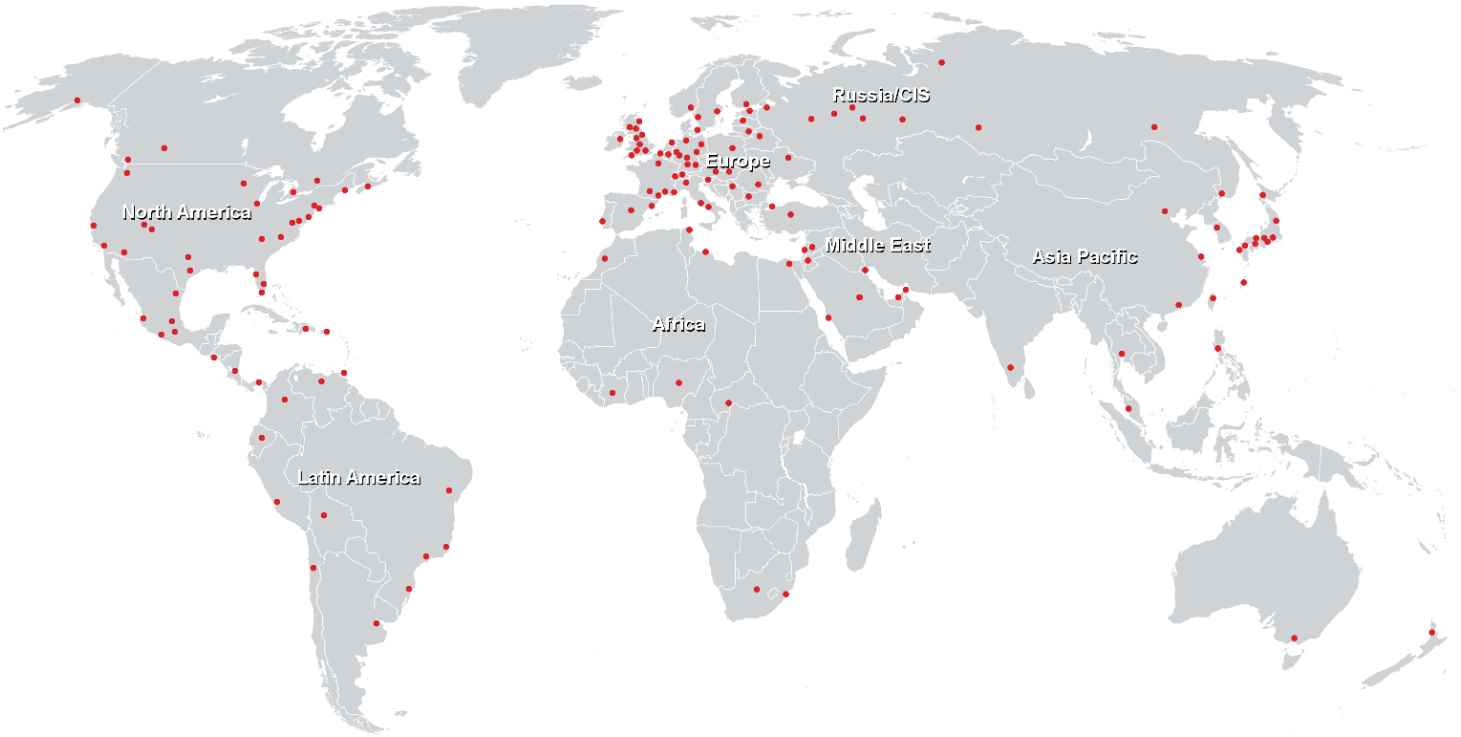
- 7.1 Security and Monitoring Systems
- 7.2 Automated Content Moderation
- 7.3 Addressing Privacy and Ethics
- 7.4 Use Case: Automated Real-Time Access Control in Corporate Offices Using Facial Authentication.
- 7.5 Case Study: Amazon Go's Cashier-less Stores Using Computer Vision for Security and Consumer 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

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Centres de formation dans le monde entier





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