

AI in Filmmaking

Day 1

Production Stage

1. **AI-Generated Visuals & Assets (Direct Generation)**
 - **AI Character & Asset Generation:**
 - **Images:**
 - Detailed Character Visuals
 - Costume & Prop Concepts
 - **Video:**
 - Text-to-Video
 - Image-to-Video
 - Video-to-Video
 - **AI Set & Environment Creation:**
 - **Virtual Locations/Environments**
 - **Environmental Lighting**
 - **Virtual Cinematography/Camera Controls**
 - **AI Audio Generation:**
 - **Dialogue Generation**
 - **Sound Design**
 - **Music Composition**

2. **Capturing Traditional Filming & Complementary Assets for AI**
 - **Live-action Footage Capture:**
 - **Traditional Sound Acquisition:**
 - On-Set Sound Recording
 - Sound Noise Capture
 - **Traditional 3D Asset Creation:**
 - 3D Modeling & Texturing
 - Special Effects

3. **AI-Assisted Production (Enhancing Live-Action & Traditional CG)**
 - **AI-Assisted Cinematography & Lighting:**
 - Smart Camera Tracking & Focusing
 - Real-time Lighting Analysis & Suggestions
 - Virtual Production
 - **Performance & Motion Capture:**
 - Motion Capture & Facial motion Capture for AI

Pre-Production Stage

1. Story & Script Development (Human-AI Collaboration)

- **Idea Generation, Brainstorming & Logline**
- **Scriptwriting & Story Outlining (with Human Refinement)**
- **Script Analysis & Predictive Insights**
- **Treatment Writing**
- **Pitch Deck Creation**

2. Visual & Audio Pre-visualization Setups

- **Concept Art & Visual Development:**
 - Art Generation
 - Character Design
 - Costume Design
 - Set Design
- **Storyboarding & Pre-visualization:**
 - Script-to-Visual Cue
 - Dynamic Animatic Generation
 - Virtual Camera Planning
- **Virtual Location Scouting:**
 - Virtual Environments
 - Game Engine Integration
- **Audio Conceptualization:**
 - Music Pre-scoring/Demos
 - Sound Design Concepts

3. Production Planning

- **Preparing Human-in-the-Loop Workflow Pipeline**
- **AI-Prepare AI Checklist for Script Continuity**
- **AI-Assisted Scheduling for Capturing Traditional Filming**
- **AI-Assisted Budgeting for AI Services**

Day 2

Post-Production Stage - Part 1

1. Editing & Assembly

- **AI-Assisted Rough Cuts**
 - Automated sequence generation.
 - Content-aware editing.
- **Human Editor**
 - Narrative crafting & storytelling.
 - Final assembly & pacing.
-

2. Visual Effects (VFX) & Integration

- **AI-Powered Compositing:**
 - AI Rotoscoping & Masking
 - Object Removal & Inpainting/Outpainting
 - Compositing
- **Visual Enhancement:**
 - Upscaling & De-noising
 - Style Transfer & Generative Fill
 - Grain/Noise Matching.
 - Sharpness & Softness adjustments.
 - Imperfections & Grime application.
- **Integration of AI & Real Footage (Seamless Blending):**
 - **Visual Consistency:**
 - Color Matching & Grading.
 - Exposure & Contrast Matching.
 - **Lighting & Shadows:**
 - Directional Lighting
 - Light Spill/Interaction.
 - Realistic Shadows & Contact Shadows.
 - **Physical Integration:**
 - Camera Tracking / Matchmoving.
 - Depth of Field (DOF) & Focus matching.
 - Motion Blur application.
 - Lens Distortion & Aberrations matching.
 - **Performance & Movement**
 - Natural Motion & Animation.
 - Interaction with real-world elements/actors.
 - **Integrate CG characters/assets** (AI-generated or human-made).

Post-Production Stage (AI Filmmaking) - Part 2

3. Color Grading

- **AI-Assisted Color Correction**
- **Human Colorist**

4. Audio Production & Sound Design

- **Sound Editing:**
- **Foley:**
- **AI Voiceovers & Dialogue:**
 - Text-to-Speech
 - Voice Cloning.
- **Audio Restoration:**
 - Noise Reduction (e.g., iZotope RX).
 - Dialogue clean-up.
- **Automated Mixing/Mastering:**
 - AI-suggested levels & effects.
- **Localization & Dubbing:**
 - AI-powered Translation & Voice Generation

5. Mixing Video & Audio

- **Dubbing - AI Lip sync - Automated Dialogue Replacement) / Voice Over Recording**

6. Marketing

- **Audience Analytics:**
 - Audience Segmentation & Targeting.
- **Marketing Asset Generation:**
 - Trailer Optimization
 - Personalized Ads
 - Promotional Material Creation

Building Your Own AI Models for Filmmaking: A Starter Guide

1. Understanding the AI Landscape (The "Why" and the "What")

- **AI for Filmmakers: Shifting mindset Apprentice, Not Master:**
- **Defining Key AI Concepts: AI, GenAI, Agentic AI, AGI**

2. The Brain Behind the Machine (Core AI Concepts)

- **From Neurons to Networks: Human Brain Analogy**
- **Key Neural Network Architectures for Filmmaking: CNN, GANs, RNN, LSTM, TTransformers**

3. AI for Different Modalities (Practical Applications in Film)

- **AI for Text & Linguistics (LLMs & Transformers):**
- **AI for Visual, Spatial, Sound & Musical (CNNs & GANs):**

4. Getting Started: From Tools to Building Your Own Models

- **The Philosophy: Learning Technology by Using Tools:.**
- **Stepping into Model Building (Practical Pathways):**
 - **No-Code/Low-Code AI Platforms:**
 - **Fine-tuning Pre-trained Models:**
 - **Introduction to Open-Source Frameworks & Libraries:**
 - **Conceptual Model Training Basics (Simplified):**
 - **Input/Output.**
 - **Training Data.**
 - **Loss Function (what makes a model "better").**
 - **Iteration & Evaluation.**
 - **Responsible AI Development:**
 - **Understanding bias in data and models.**
 - **Ethical considerations of generating content (e.g., deepfakes, copyright).**
 - **Transparency in AI usage.**