



# Arts and Advanced Big Data

v1.0

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# **Review**

## ➤ Week 1 — Instructor & Course Introduction

- Met the instructor and classmates
- Learned course goals and methods
- Key idea: Arts × Advanced × Big Data
- Tool for communication: Trello

## ➤ Week 2 — Coding with Prompt: Introduction

- First demo of a Generative Poster in Python
- Learned the workflow: Prompt → Code → Run → Refine
- Concepts: randomness, lists, loops, functions, matplotlib
- [Reference Code](#)

## ➤ Week 3 — Coding with Prompt: Practice

- Practiced changing parameters (layers, wobble, radius)
- Designed custom color palettes (pastel, vivid, mono)
- Added style presets (Minimal, Vivid, NoiseTouch)
- Learned reproducibility with seed + saving posters as PNG
- [Reference Code](#)

## ➤ Week 4 — Coding with Prompt: Extensions

- [Interactive & 3D-like posters](#)

## ➤ Week 5 — Data-Driven Generative Poster (CSV)

- Data is everywhere. AI is also everywhere.
- Data exists in many forms
  - Structured Data
  - Semi-Structured Data
  - Unstructured Data
- Data is not only information – it's material for creativity.
- Main Activity
  - Create a generative poster whose colors come from a CSV palette.
  - [Reference Code](#)

## ➤ Week 6 – Happy Chuseok (No Class)

## ➤ **Week 7 — MCP (Model Context Protocol)**

- MCP Basic Concepts & Architecture
  - MCP Client
  - MCP Server
- Claude Desktop Installation
- MCP Local Filesystem Setup & Test

## ➤ **Week 8 – Mid-Term All-in-One (No Class)**

## ➤ **Week 9 – Web-based**

- Modern Software Development Style
  - LLM ↔ Colab ↔ Github ↔ Streamlit

## ➤ Week 10 — Open API

- Open API Concepts & Architecture
  - Web Client
  - Web Server
- Sample Sites using Open API
  - Explore Artworks with MET Museum API
    - <https://artwork-rdy2gcm6lksscmcdcscxdj.streamlit.app/>
  - Open-Meteo Interactive Weather Dashboard
    - <https://weather-wkphpaukijoaqqbrytdyvtu.streamlit.app/>
  - Koshi200 Recommendation Service
    - <https://koshi200.streamlit.app/>

# **Role-based Chatbot**

## ➤ Role-based Chatbot

- AI models can answer general questions.
- If we give them **a role**, they become more creative and useful. For example, a chatbot can act as:
  - a video production expert
  - a fashion consultant
  - a dance coach
  - a performing arts critic.
- You'll design your own chatbot that 'thinks and speaks' like a professional in one creative field.

## ➤ Goal

- Implement a **role-based chatbot** using Claude or OpenAI API.

Role	Description	Example Question
 Video Director	Analyzes mood, camera angle, lighting	"How can I shoot a dream sequence?"
 Dance Instructor	Suggests movement, rhythm, expression	"How can I express sadness through movement?"
 Fashion Stylist	Explains color trends, materials, silhouette	"What style fits a confident personality?"
 Acting Coach	Teaches emotion delivery, scene breakdown	"How to express fear naturally on stage?"
 Art Curator	Interprets artwork, connects with data	"How does this composition convey emotion?"

➤ <https://role-chatbot-openai-4ofn6rvfxizvg3kezoaa9.streamlit.app/>

The screenshot shows a web browser window for the URL `role-chatbot-openai-4ofn6rvfxizvg3kezoaa9.streamlit.app`. The interface is titled "Role-based Creative Chatbot" with a subtitle "Select a creative role and ask your question!". On the left, there's an "API & Role Settings" sidebar where users can enter their OpenAI API key (sk-XXXXXXXXXXXXXX) and choose a role from a dropdown menu. The currently selected role is "Video Director". A large blue callout box provides a detailed description of what it means to be a Video Director, mentioning analysis of visual storytelling elements like camera movement, lighting, framing, and emotional tone. Below the sidebar, a footer note states "Built for 'Art & Advanced Big Data' • Prof. Jahwan Koo (SKKU)".