Public Libraries & AI

Introduction to HuggingFace

Michigan AI Capacity Building 2025 - Cohort 1

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HuggingFace 🤗 Corporate Overview

- NYC-based; French founders

- Software and Services

- Open and collaborative platform

OK, So… What Is HuggingFace🤗?

- Collaborative, open

  computing platform for

  AI/ML/NLP applications

- "GitHub for AI"

- Contains AI models,

  datasets, tools, and more

Demo 1: LHM Animation

Why Should I Care?

- Promotes open, accessible, and

    transparent AI research

- Share, reuse/remix, fine-tune,

    improve, etc.

- Open source tools for easy AI

    experimentation

- OpenAI is not in charge

Open Source, Open Weights, Open Models...

Open **Source** (as in "source code")

   Think Firefox, Linux, etc. ["TensorFlow, PyTorch, HF Transformers"]

Open **Weights**

   The actual numbers that comprise the AI's "memory"

Open **Model**

   Source + Weights + Underlying resources for reproducing

<u>Some</u> Major "Open" AI Companies

Note: "OpenAI" is a separate company!

Google, OpenAI, Anthropic do release open models

- HuggingFace

- Meta (llama)

- Mistral

- Stability

Modes and Models

Modes:

- Text (LLM, spell-check)

- Vision (images / video in-out)

- Audio (T-T-S, S-T-T)

- Multimodal (combines 1+)

Model Examples:

- Text: GPT-3.5

- Vision: StableDiffusion

- Audio: Whisper

- Multimodal: GPT-4o

Datasets

- Used to train AI models

- Don't necessarily respect copyright!!

Demo 2: ChatUI Chatbot

Demo 3: Image Generator

Q&A

Thanks for attending!

email jim@galecia.com
with more questions!