SAUKENI LE DU

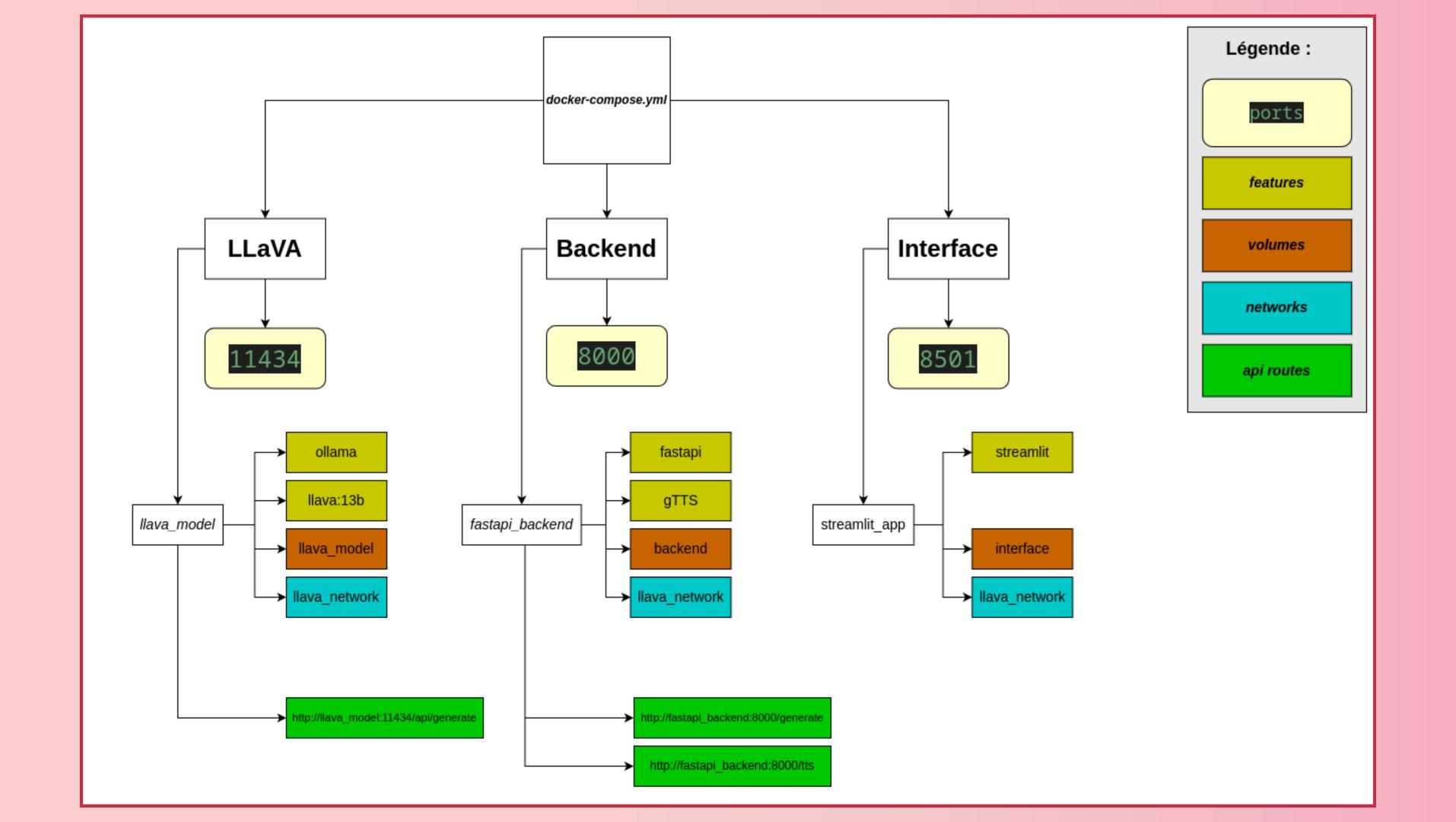


YOUR PERSONNAL ASSISTANT FOR LOVE LETTER GENERATION

18/12/2024

CLOVIS LECHIEN





before:

LLaVA

Large Language and Vision Assistant

• Multimodal LLM (MLLM)

• LLaVA:13b

∘ Size: ~8 GiB

○ LLM: LLaMA v2

quantization: Q4_0

• Projector: **CLIP**

quantization: F16

ollama

GPT-2 + BLIP2

fine-tuning (legacy)

Large Language Model (MLLM)

• Gpt2-medium:380M

Size:

pre-finetune: ~1.4 GiB

post-finetune: ~7 GiB

quantization: F32

• Blip2-Salesforce:3.74B

∘ Size: ~14 GiB

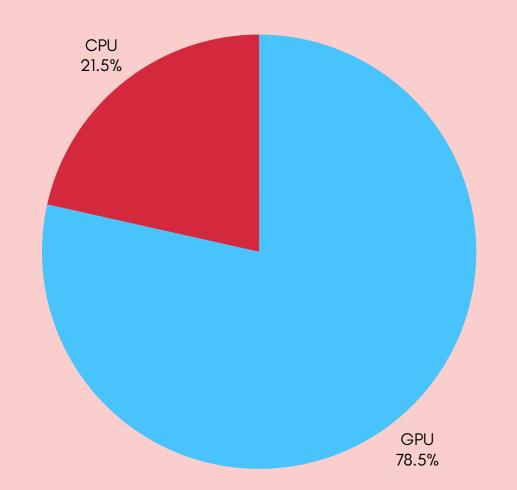
quantization: F32

huggingface

	CPU Usage (%)	CPU Memory Usage (GiB)	GPU Usage (%)	GPU Memory Usage (GiB)	Inference Time [cumsum](s)
LLaVA CPU	~90.1%	~27.6 GiB	/	/	387 s
LLaVA GPU	~4.07%	~1.25 GiB	~87.5%	~7.17 GiB	106s

• GPU inference ~4x faster than CPU

• consistent inference times on GPU



name	86s	21s
name + cs	84s	29 s
name + cs + ac	76s	22s
name + cs + ac + pic	141s	34s

LLaVA

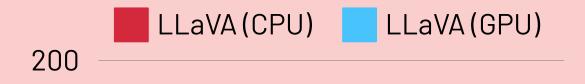
(CPU)

LLaVA

(GPU)

50

Inference Time (s)









CODE AVAILABLE AT:

ClovisDyArx/baudel-ai.r

