

LLM Engineering

MASTER AI & LARGE LANGUAGE MODELS



A stylized illustration of a woman with dark hair, seen from behind, walking along the Great Wall of China. She is wearing a tan trench coat with red piping on the cuffs and collar, and red high-heeled shoes. She is carrying a small brown suitcase. The wall itself is made of grey bricks and has a traditional tiled roof. In the background, there are green mountains under a blue sky with white clouds. The sun is visible in the upper left corner.

PROGRESS

Proprietary Models Start Today

What you can now do

- Generate text and code with Frontier Models and Open Source models using APIs and HuggingFace, including tools, assistants and RAG
- Follow a 5 step strategy to solve problems, including dataset curation, making a baseline model, and fine-tuning a Frontier model
- Explain QLoRA for fine-tuning open-source models including defining target modules, r and alpha

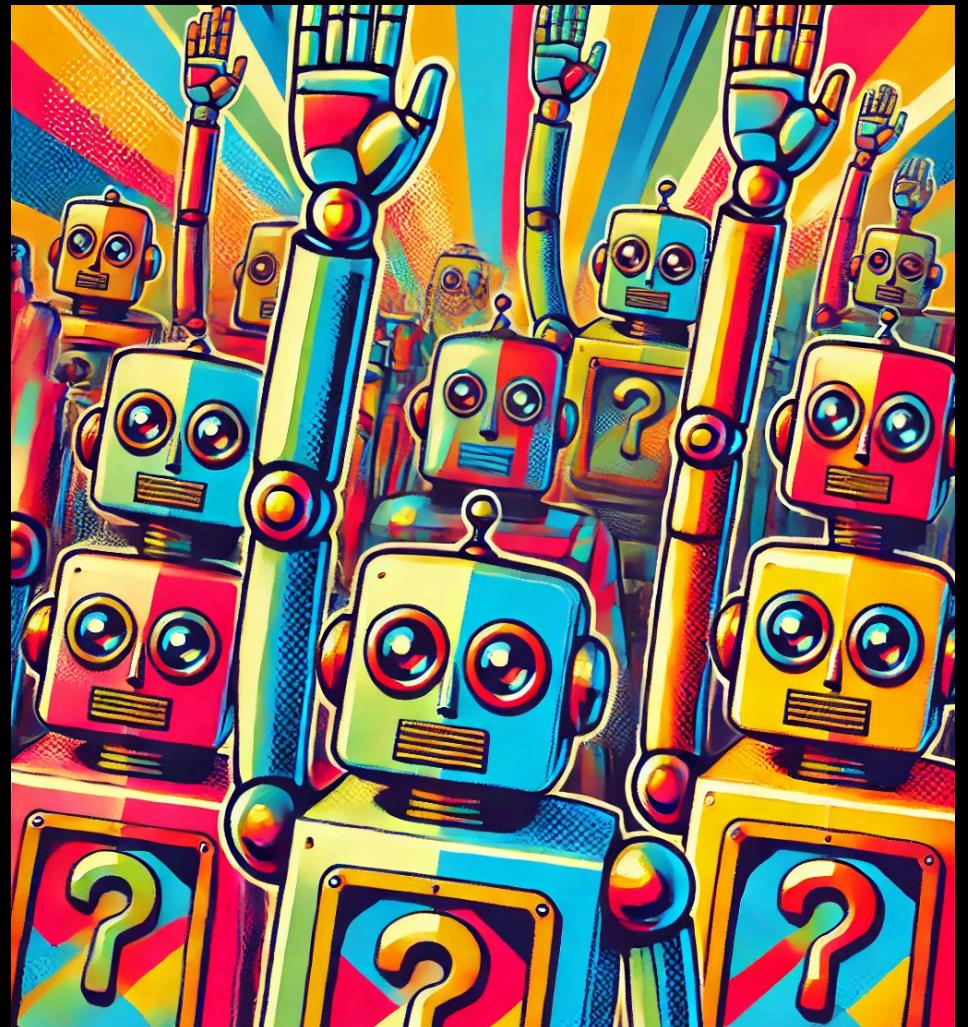
By next time you will be able to:

- Select an open source model for fine tuning
- Compare instruct and base variants for a task
- Evaluate a base model against a business objective

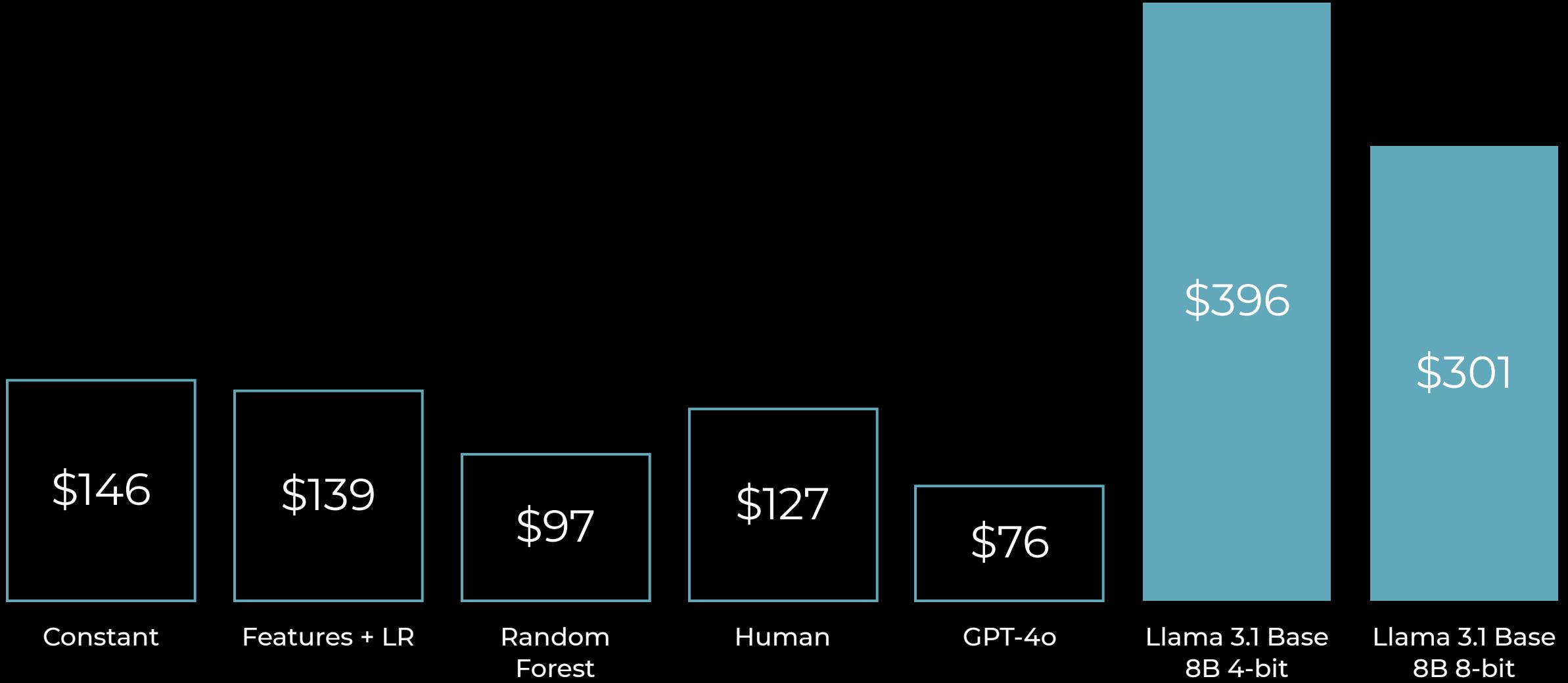
Which Model?

Decisions to select our base model

- Number of parameters
- Llama vs Qwen vs Phi vs Gemma
- Base or Instruct variants



Average prediction error from our models





PROGRESS

EIGHTY PERCENT!!

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- Generate text and code with Frontier Models and Open Source models using APIs and HuggingFace, including tools, assistants and RAG
- Follow a 5 step strategy to solve problems, including dataset curation, making a baseline model, and fine-tuning a Frontier model
- Explain QLoRA for fine-tuning open-source models including defining target modules, r and alpha, select and evaluate a base open source model

By next time you will be able to:

- Outline the major hyper-parameters used during training
- Set up an Supervised Fine Tuning Trainer
- Kick off training your own proprietary LLM!