# Build Your Al Assistant for Free

A GUIDE FOR NON-TECHIES





## **Agenda**

Welcome & Introduction (15 mins)

Build Your Al Assistant for Free (20 mins) – Uli

Your Al intern (20 mins) – Keith

Sign up for the Al Masterclass in Singapore on, happening December 10th!



- Diverse Team across Singapore, Hong Kong, and Australia.
- Using AI to address global challenges through collaboration across startups, corporations, academia, and government.
- Make an impact while growing your skills and network.
- → Get involved: attend events, join projects, be part of the change!





### **December 10: AI Masterclass**

#### **Practical Al-Driven Workflows**

- Discover practical workflows that incorporate Altools and applications.
- Gain insights into how AI can streamline processes and enhance productivity.

# Hands-On Experience with Use Cases Across Industries

- Engage in hands-on activities that showcase real-world Al applications.
- Explore use cases that span various industries and job functions, including marketing, finance, operations, and more.







Keith B Carter



Uli Hitzel

# Al For Humanity Forum 2024

iii 12 December 2024 | 9:00am - 5:00pm

• Catapult by Capitaland, 1 Rochester Park, #02-01 Rochester Commons, Singapore 139212

Register Now

Use the code AI4HELECMINDS for 35% OFF!





2 Years of ChatGPT

- ChatGPT (2022) sparks conversational Al revolution
- 2024: Diverse landscape of chat services and models
- Claude.ai, Le Chat
- Open models, smaller models (e.g., LLaMA)
- Private/Offline, locally-run models gain popularity
- Al landscape offers a spectrum of choices
  - Free vs. paid
  - Online vs. offline
  - Varying model sizes and capabilities
  - Open vs. proprietary options



## The LLM Zoo

- Open vs. Proprietary
- Different LLMs have varying capabilities and complexity levels
- Model size
  (parameters)
  generally correlates
  with performance
- More advanced tasks require larger, more capable models

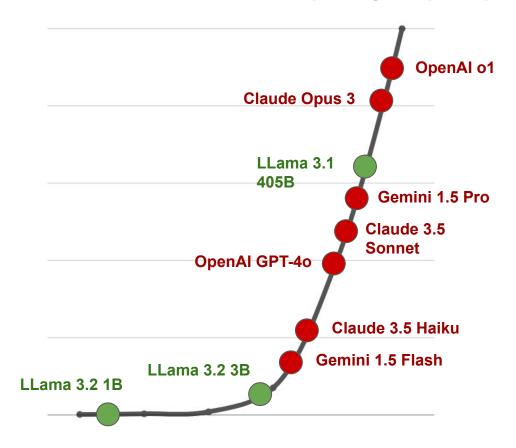








## Which One For What?



#### X-Axis: Model Size/Parameters

- **Small (1B to 3B)**: Efficient and suitable for basic tasks.
- Medium (8B to 70B): Balanced performance for a broad range of tasks.
- Large (100B and above): High capability for complex and demanding tasks.

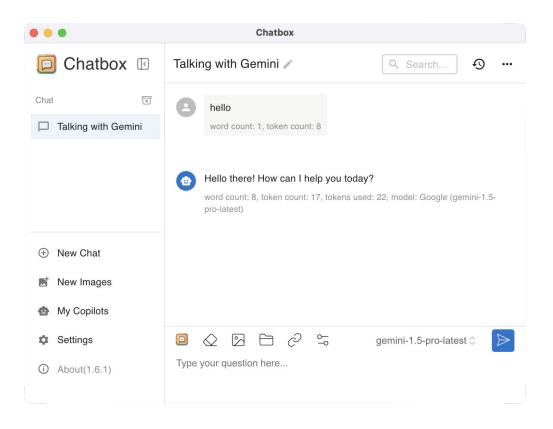
#### Y-Axis: Capability/Complexity

- **Basic**: Simple summarization, basic chatbots.
- Intermediate: Instruction following, multilingual retrieval.
- Advanced: Complex reasoning, multi-turn dialogue, specialized tasks.

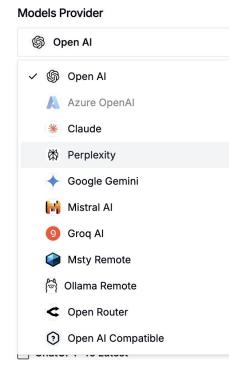
# Running Al: Online & Offline

- Online (e.g. GPT-4o):
  - Internet-based, remote servers
  - Easy access, managed by provider
  - Requires stable internet connection
- Offline (e.g. LLaMA):
  - Run locally on your devices
  - Data stays local, works offline
  - Requires more local computing power

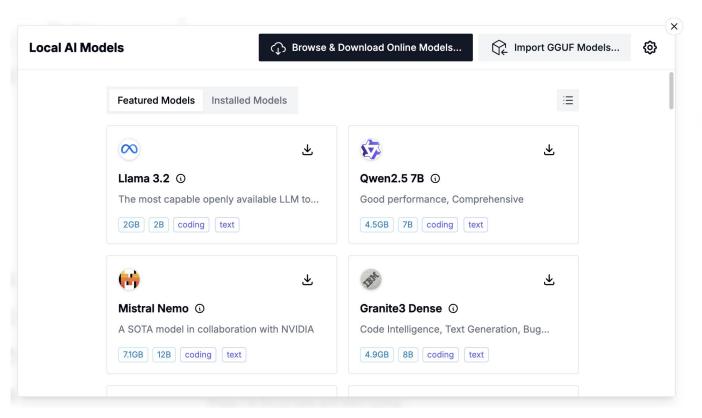
### Use Free GUI Tools + Free Online AI Services



#### New Remote Models Provider



# Running Models Locally











# Running Al: Online & Offline

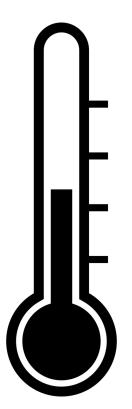
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## Running Al Offline: Requirements

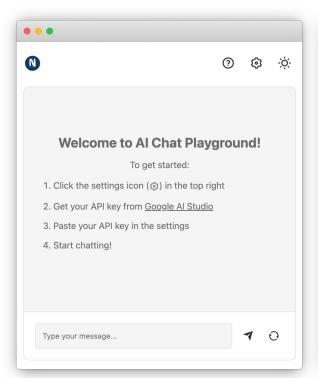
- Hardware requirements for offline LLMs:
  - Small models (e.g. LLaMA 3.2 3B):
    - Modern laptops (8GB+ RAM)
    - Suitable for basic tasks (summarization, simple Q&A)
  - Medium models (e.g. LLaMA 3.1 70B):
    - High-end workstations or servers (64GB+ RAM, GPU acceleration)
    - Handle more complex tasks (advanced Q&A, document analysis)
  - Large models (e.g. LLaMA 3.1 405B):
    - Specialized AI hardware (e.g. TPUs, clusters with 1TB+ RAM)
    - Tackle the most demanding AI applications (complex reasoning, creative generation)

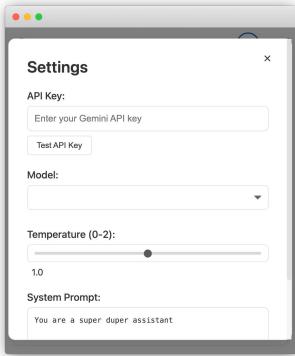
## Guiding Your AI with Prompts & Temperature

- System prompts guide the LLM's behavior
- Define purpose, personality, knowledge, output format
- Example: "You are a helpful Al assistant. Provide concise answers."
- Well-crafted prompts key to good results
- Temperature: Randomness of LLM's outputs
  - Low temp: Focused, deterministic, less creative
  - High temp: More random, creative, less focused
- Adjust temperature based on task (e.g. low for factual Q&A, high for story generation)



## naida AI Chat Playground





- Fully runs in the browser
- Use free Gemini Al from Google
- Get an API Key (access token) from Google
- Set system prompt, temperature
- Start chatting!