

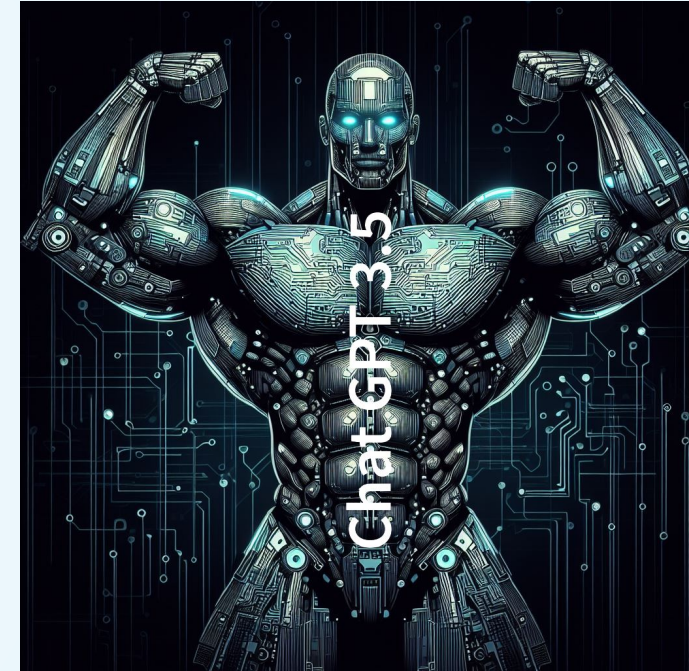
*Empower Your Skills, Boost Your Productivity for a Prosperous Pakistan*

# Pak Angels Essential Generative AI Training



## THE RISE OF GENERATIVE AI

**A GAME - CHANGER**



# Pak Angels Essential Generative AI Training



## Module 5 Hands-on with Generative AI Models



# Pak Angels

## Essential Generative AI Training

### Module 5



LangChain



Hugging Face

# Hands-on with Generative AI Models



Gemini

LLaMA  
by  Meta

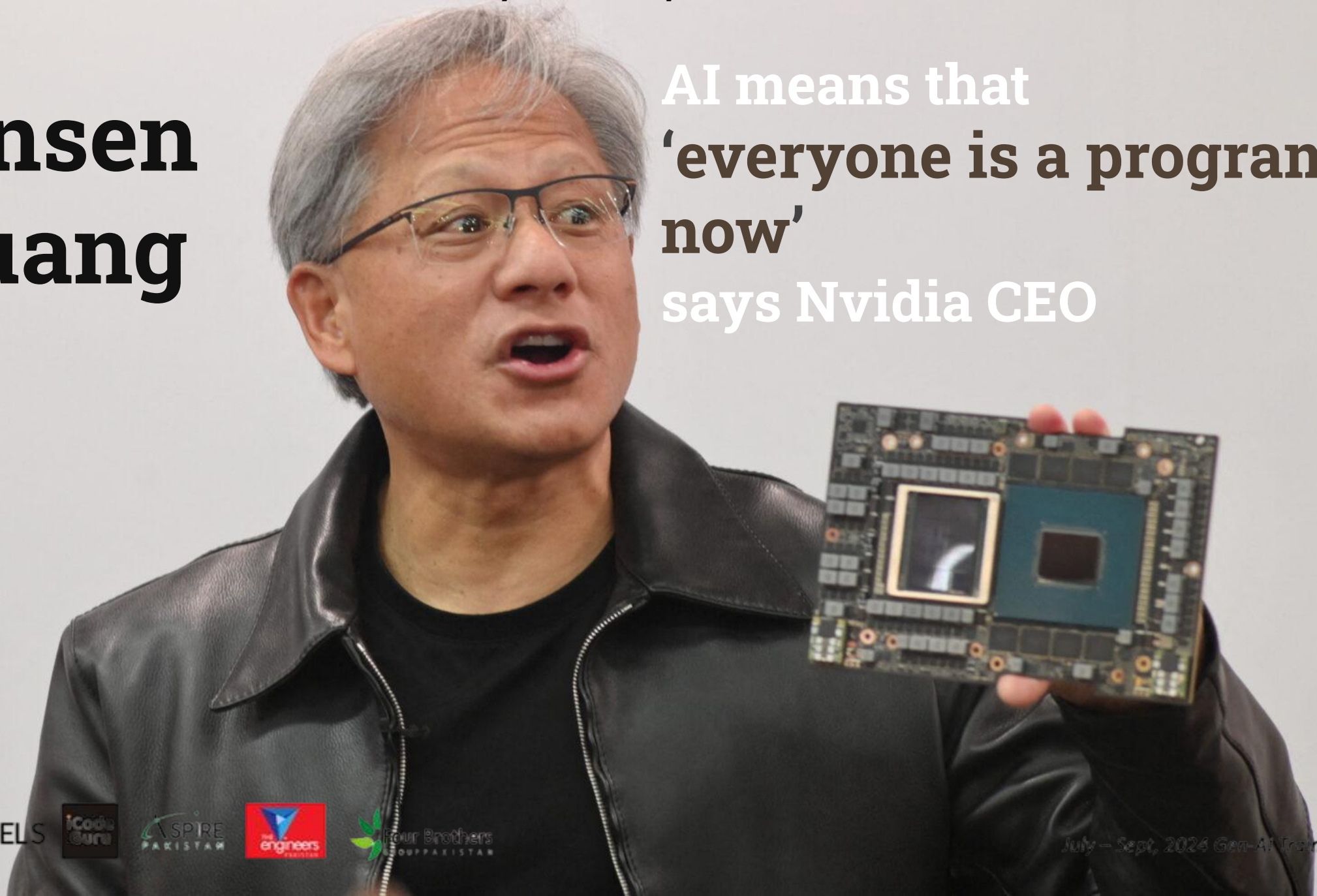
## ***Empower Your Skills, Boost Your Productivity for a Prosperous Pakistan***





# Jensen Huang

AI means that  
'everyone is a programmer  
now'  
says Nvidia CEO



# Jensen Huang

AI means that  
**'everyone is a programmer  
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- Generative AI tools like ChatGPT have proved capable of generating code, speeding up deployment of software while reducing strain on developers.
- "Everyone is a programmer now. You just have to say something to the computer," said Nvidia's founder and chief executive.

## Democratization of Programming:

People no longer need to know complex programming languages or syntax to "program" a computer. Instead, they can use plain language or simple commands to instruct computers to perform tasks.

## Empowerment through AI:

The rise of AI tools means that people can now harness computational power to solve problems, create content, and innovate without the steep learning curve traditionally associated with programming.



# Composite Intelligence

**POWER OF TECHNOLOGY + POWER OF PEOPLE**





# Hands-on with Generative AI Models

- 1) Explain how to use the model.
- 2) Demonstrate how to find and explore existing Generative AI models in 3-4 different vertical application areas, at Hugging Face
- 3) Select the first model and show how to turn it into a complete application with a user interface (UI).
- 4) Repeat the process with a second model, turning it into a complete application with a UI.
- 5) Do the same with a third model, creating a full application with a UI.
- 6) The objective is to repeat the process with three different models to reinforce understanding.

## Hands-on with Generative AI Models

- **Using Cloud-Based APIs:** (Optional) Walkthrough of using cloud-based platforms for easy GenAI model access
- **Choosing a Use Case:** Participants select a specific application (e.g., creative writing)
- **Generative AI Enhanced Chatbot:** A chatbot using generative AI enabled conversation
- **Experimentation and Iteration:** Encourage exploration with different prompts and parameters to refine results



**Hugging Face**



**LangChain**

Open-Source Models

**Building Generative AI using**

**Hugging Face + LangChain**







**Hugging Face**



**LangChain**

Open-Source Models

Building Generative AI using

**Hugging Face + LangChain**

[Hugging Face and Langchain.ipynb - Colab \(google.com\)](#)



# Hugging Face

## Hugging Face

- Hugging Face is a leading platform for NLP that provides a wide range of tools and libraries to work with LLMs.
- The platform also offers a model hub where developers can share and access pre-trained models, fostering collaboration and innovation in the AI community.
- Hugging Face simplifies the deployment and fine-tuning of NLP models, making advanced AI accessible to a broad audience.

Hugging Face – The AI community building the future.

# LangChain



**LangChain**

- LangChain is a framework that simplifies the creation of applications using large language models (LLMs).
- It offers tools for integrating and utilizing LLMs, making it easy to build chatbots, and other AI-driven language applications.

Hugging Face – The AI community building the future.

LangChain





**Hugging Face**

# Hugging Face + LangChain

A New Partner Package in LangChain



**LangChain**

- A collaboration or integration between Hugging Face and LangChain.
- Hugging Face is known for its NLP models and tools, while LangChain is a framework for building applications with language models.
- The partnership enhancing Hugging Face capabilities in natural language processing and model deployment for Gen AI Apps.

Hugging Face – The AI community building the future.

LangChain

# Models

Gemini



Hugging Face



LangChain



LLaMA  
by  Meta



**Hugging Face**



**LangChain**



# Hugging Face and Langchain.ipynb - Colab (google.com)





**Hugging Face**



**LangChain**

Building Generative AI using  
**Hugging Face + LangChain**

Open-Source Models



**Thank You!**

Regards,  
Zulfiqar Ali Mir

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**...or create a new repository on the command line**

```
echo "# Hugging-Face-Models" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M master
git remote add origin https://github.com/zulfiqaralimir/Hugging-Face-Models.git
git push -u origin master
```

**...or push an existing repository from the command line**

```
git remote add origin https://github.com/zulfiqaralimir/Hugging-Face-Models.git
git branch -M master
git push -u origin master
```





```
git init
```

```
git add .
```

```
git commit -m "Initial commit"
```

```
git remote add origin https://github.com/yourusername/yourrepository.git
```

```
git branch -M main # Renames the default branch to master'
```

```
git push -u origin master
```

