



global AI bootcamp

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Getting started with AI Tools, Frameworks & Resources

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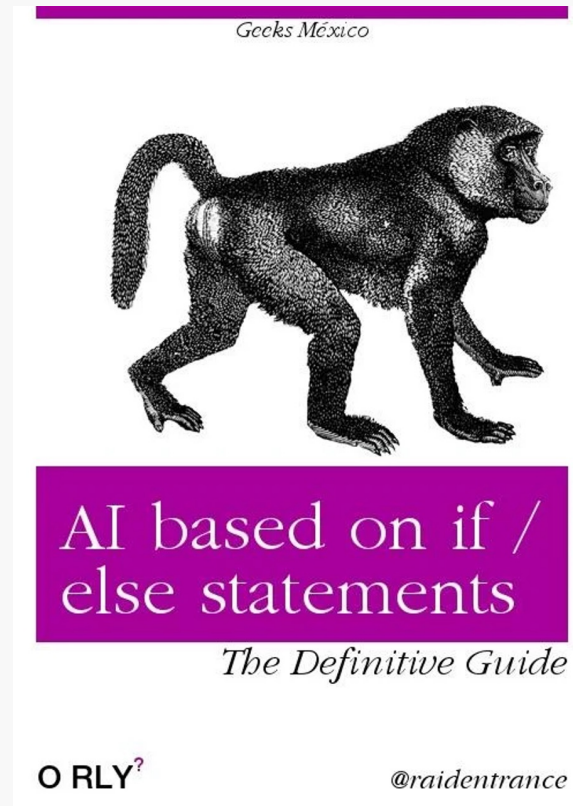


Agenda

- What's AI?
- Principles of AI
- Open AI
- Open AI & Microsoft
- Open AI services and Demos

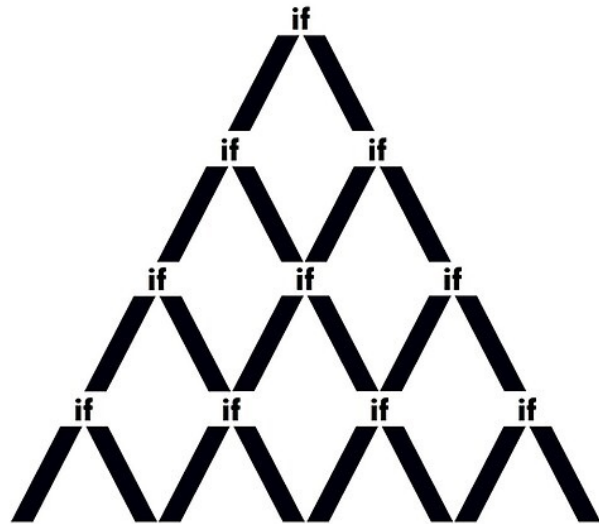
- Q&A

What's with AI?



What's with AI?

WHAT AI ACTUALLY IS



What's with AI?

Artificial Intelligence



what people think it is



what amateur
programmers think it is

```
1
2 // 10,000 if-statements
3
4 if() {
5     if() {
6         if() {
7             if() {
8                 if() {
9                     if() {
10                        if() {
11                            if() {
12                                if() {
13                                    if() {
14                                        if() .
```

what actually it is







What is Artificial Intelligence?

Software that imitates human capabilities

- Predicting outcomes and recognizing patterns based on historic data
- Recognizing abnormal events and making decisions
- Interpreting visual input
- Understanding language, and engaging in conversations
- Extracting information from sources to gain knowledge



Principles of Responsible AI

		Challenge or Risk	Example
	Fairness	Bias can affect results	A loan-approval model discriminates by gender due to bias in the data with which it was trained
	Reliability & Safety	Errors may cause harm	An autonomous vehicle experiences a system failure and causes a collision
	Privacy & Security	Data could be exposed	A medical diagnostic bot is trained using sensitive patient data, which is stored insecurely
	Inclusiveness	Solutions may not work for everyone	A predictive app provides no audio output for visually impaired users
	Transparency	Users must trust a complex system	An AI-based financial tool makes investment recommendations - what are they based on?
	Accountability	Who's liable for AI-driven decisions?	An innocent person is convicted of a crime based on evidence from facial recognition – who's responsible?

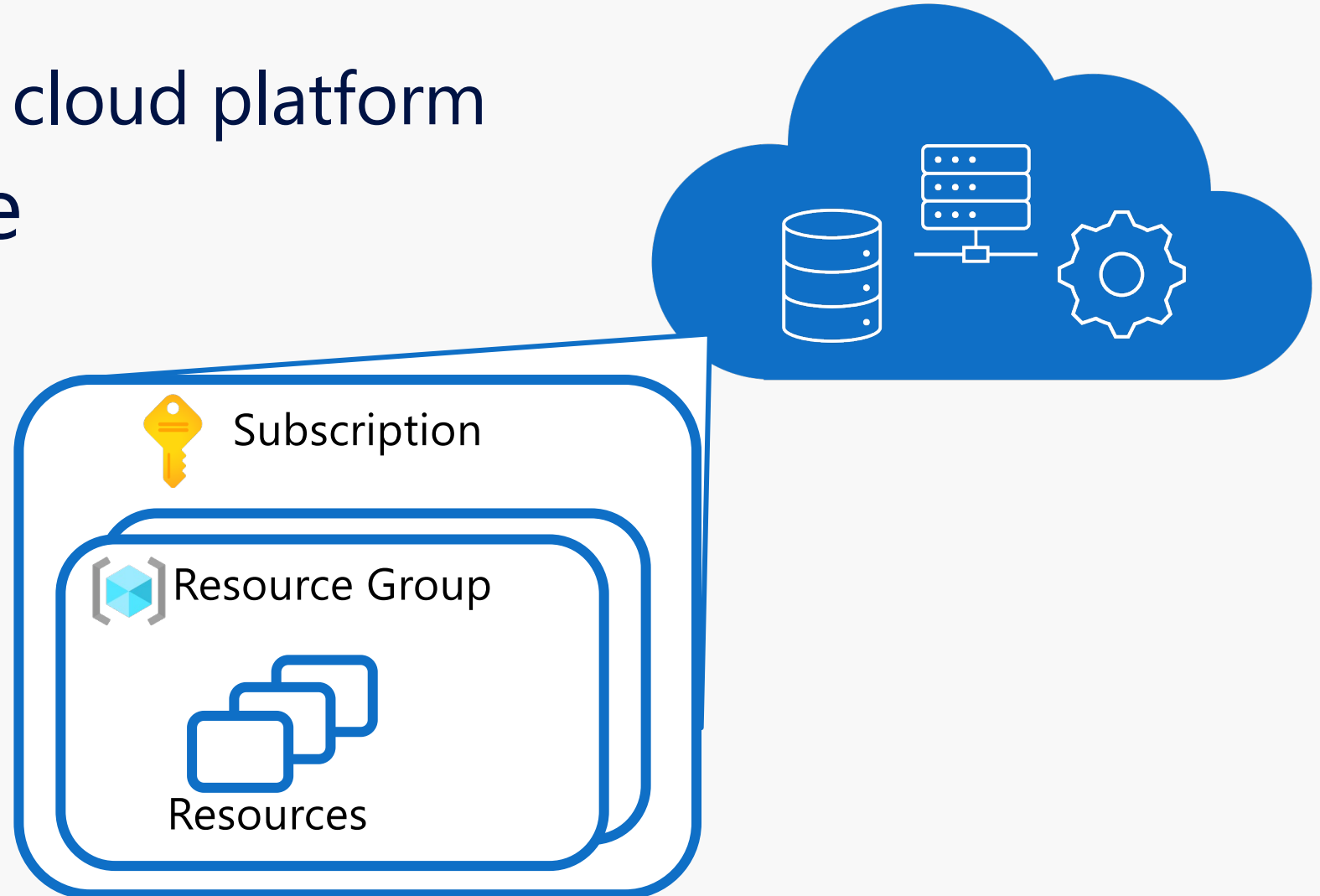
Artificial Intelligence in Microsoft Azure



Azure Basics

Scalable, reliable cloud platform

- Data storage
- Compute
- Services



AI Services in Microsoft Azure



Azure Machine Learning

A platform for training, deploying, and managing machine learning models



Cognitive Services

A suite of services with four main pillars: Vision, Speech, Language, Decision



Azure Bot Service

A cloud-based platform for developing and managing conversational bots



Azure Cognitive Search

Data extraction, enrichment, and indexing for intelligent search and knowledge mining

Open AI

What is Open AI?

OpenAI is an artificial intelligence research laboratory consisting of the for-profit OpenAI LP and its parent company, the non-profit OpenAI Inc.

What are the Goals of Open AI?

The goals of OpenAI are to develop and promote friendly AI in a way that benefits all of humanity. They conduct research in a variety of areas related to AI, including machine learning, computer vision, natural language processing, and robotics.

What is GPT? & Generative AI?

Generative AI

Any type of AI that can be used to generate new text, videos, images, audios, code/code snippets etc.

Chat GPT?

Chat Generative Pre-Trained Transformer

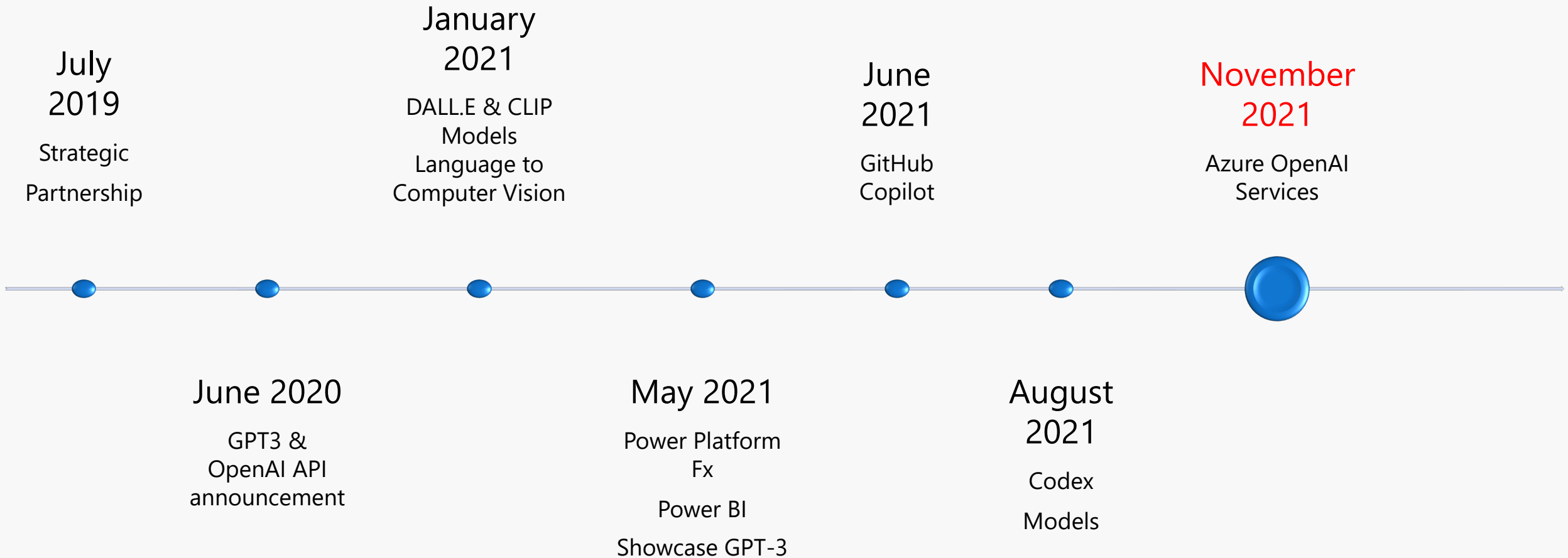
GPT – A series of models that can understand and generate natural language

DALL.E – It understands the natural language text/image input and generate Images

Codex – Models that can understand natural language and can translate that into Code

Embeddings – Special format of data for models to utilize in Machine Learning models and Algorithms

Open AI & Microsoft Journey



Azure Open AI Services

- Unlock Business values with new experiences (GPT3, Codex)
- Quick Prototype/PoC and customization for production scale
- Responsible AI
- Scale with enterprise grade security & reliability
- Currently available by requesting Microsoft by specifying Business Use Cases and requirements
- Access available post Microsoft Approval



Demos OpenAI Services

Chat GPT, DALL . E, Codex etc.

Key Takeaways

- Currently there is no Official App for Open AI (No Mobile Store App (Apple/Android), Windows Store for Desktop Apps etc.
- OpenAI services can be access via any Browser on any OS
- Azure OpenAI services are currently approved by Microsoft on case basis
- You are ultimately responsible for the checking the accuracy, validity and appropriateness of the outcome from OpenAI services

➤ <https://openai.com/blog/>



Thanks

Slides/Demos available at github.com/VikramPendse/Presentations

facebook.com/PuneUserGroup

[@PuneUserGroup](https://twitter.com/PuneUserGroup)

Next event – Global Azure Bootcamp 2023



Dates –13th May 2023 at Pune