

Data Engineering in Age of AI

Career: Challenges, Opportunities

Our story. An aspiration

|

Land of Data

|

Reaching for AI

..our story

We humans are a bunch of explorers.

..our story

Islands.

Oceans.

Space.

..an aspiration

Where's the scale & value today?

Space!

..an aspiration

Why Space Economy?

Transformative – Weather, Telecom, Security

Pathways – source or create

Endless possibilities

..an aspiration

What's stopping us from Space?

Gravity!

Land of Data

..let's go: data

Business runs on Apps.

..let's go: data

Apps produce data.

Business runs on Apps.

..let's go: data

Different understanding. Different Business Groups.

Apps produce data.

Business runs on Apps.

..let's go: data

Non-conformed / Disjointed Data.

Different understanding.

Different Business Groups.

Apps produce data.

Business runs on Apps.

..let's go: data

Data Platform: Conformed / Consolidated

Non-conformed / Disjointed Data.

Different understanding.

Different Business Groups.

Apps produce data.

Business runs on Apps.

..let's go: data

Business $\xrightarrow{\text{(pull)}} \text{Conformed Data (value)}$

Data Platform: Conformed, Consolidated

Non-conformed Data.

Different understanding.

Different Business Groups.

Apps produce data.

Business runs on Apps.

..let's go: data

Let's call it...

Gravity

Reaching for AI

Transformative

|

Buy or Build

|

Endless possibilities

..transformative, buy or build

Sales
Copilot

Search –
Bing, Edge

Security
Copilot

GitHub
Copilot

Fabric,
Power BI

Azure AI
Services

..endless possibilities

We are moving from auto-pilot era to the
co-pilot era of AI !

Satya Nadella

..endless possibilities

From

To

Tools



Creative assistant

Product specific



Cross-fitting

Data input



Content generation

Following commands



Provides recommendations,
with human in the loop

Uses specialized languages



Uses natural language

..endless possibilities



discuss **Possibilities**



loop **Endlessly**

..endless possibilities

Discuss

Outcome & Value focus.

Take off..

Environment and Priorities.

Bias and Disablers.

Be Grounded..

Guardrails.

Loop

Dev – Test – Deliver Fast.

Integration. End Points.

Responsible AI. Access.

Controls and Policies.

GitHub Copilot

Pair Programming. Almost.

Contextual. Look left. Look right.

Curvature. Rate of Change. Big / Small.

```
19     screenshot = imagegrab.grab()
20     # Convert to text
21     text = image_to_string(screenshot)
22     # Parse text for email addresses
23     emails = re.findall(r'[\w\.-]+@[\w\.-]+', text)
24     return emails
25
26 def validate(addresses) :
27     |
28
```

..examples

Microsoft Fabric

Unified. Scale + Multi-faceted.

Governance. Agile + Controls.

For Age of AI. Collect => Deliver.



The image shows a screenshot of the Microsoft Fabric dashboard. At the top left is the Microsoft Fabric logo, a stylized 'F' in shades of green and blue. To its right, the text reads "Microsoft Fabric" and "Accelerate productivity with Copilot" in a light green font. Below this header is a grid of seven service tiles: Data Factory (green icon), Synapse Data Engineering (blue icon), Synapse Data Science (blue icon), Synapse Data Warehousing (blue icon), Synapse Real Time Analytics (blue icon), Power BI (yellow icon), and Data Activator (red icon). Below these tiles is a larger box containing the OneLake logo, which is a blue circular icon with a white 'O' shape inside, and the text "OneLake" below it.



Questions. Resources.

aka.ms/fabric

aka.ms/azureai

aka.ms/azure-openai

aka.ms/githubcopilot

aka.ms/bing

aka.ms/salescopilot

aka.ms/securitycopilot

aka.ms/learn

aka.ms/responsibleai

aka.ms/artificialintelligence

Thank you