



Grok

I want to leverage AI

but I'm a little overwhelmed by my options

 Meta



deepseek



Claude



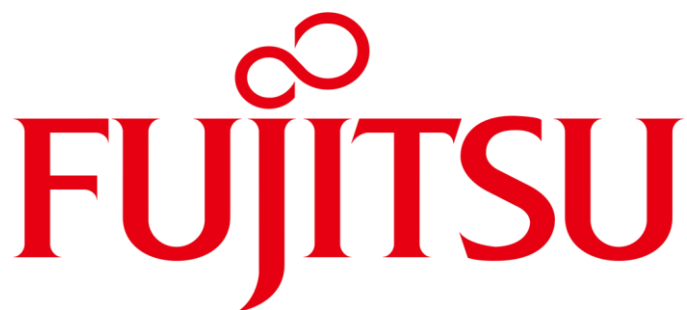
Qwen



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Martin Catherall

Data Analytics Consultant

 @MartyCatherall

www.MartinCatherall.com

- Data Architect

- SQL Server

- Since 2002

- Microsoft Azure

- Since 2015

- Microsoft Fabric

- Since 2022



Agenda

I just need a starting point

Am I too late to the party?

Should I even care?

What Can I use AI for?

The AI Journey

- **Traditional AI**

Traditional AI, sometimes referred to as 'Rule based AI'
Relies on specific algorithms and defined parameters

- **Generative AI**

Generative AI can create new content based upon its training. Can generate content such as text and graphics.
Data-Driven generation

- **Agentic AI**

Agentic AI acts independently. Pursues objectives and learns for its interactions. Makes decisions and is 'Goal-Oriented'
Experience based learning

The AI Journey

- **Azure AI Services (Cognitive Services)**

[What are Azure AI services? - Azure AI services | Microsoft Learn](#)

Face | Custom Vision | Document Intelligence etc.....

- **Copilots (lots of them)**

[Microsoft Copilot - Wikipedia](#)

Too many to mention 😊

- **Azure AI Foundry**

[What is Azure AI Foundry? - Azure AI Foundry | Microsoft Learn](#)

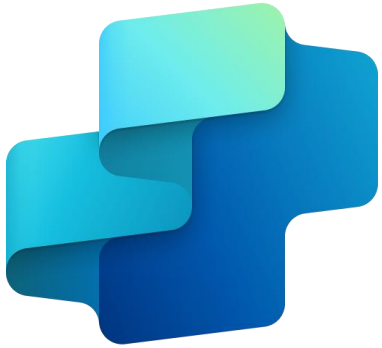
Build your own Generative AI application

The AI Journey



Copilot

No Code



Copilot Studio

Low Code



AI Foundry

Pro Code

The AI Journey – Traditional AI

Azure AI Services

Document Computer Vision

[Custom Vision documentation - Quickstarts, Tutorials, API Reference - Azure AI services | Microsoft Learn](#)

Document Intelligence

[Document Intelligence documentation - Quickstarts, Tutorials, API Reference - Azure AI services | Microsoft Learn](#)

Language

[Azure AI Language documentation - Tutorials, API Reference - Azure AI services | Microsoft Learn](#)

Face service – part of custom vision

[What are Azure AI services? - Azure AI services | Microsoft Learn](#)

The AI Journey – Generative AI



Copilot(s)



GitHub
Copilot

The AI Journey – Prompt Engineering

Prompt Engineering

Asking the right question(s) – providing the right context

It's just google “on steroids”, right - *Wrong*

1 – Role / Persona

2 – Task / Action

3 – Include (use case / situation / audience)

4 – Format (list, summary, table etc...

5 – Tone / Constraints - *maybe*

The AI Journey – Prompt Engineering

Example

Act as an expert on writing a curriculum vitae.

Write a summary of 500 words based on the following LinkedIn profile.

Include information about common data engineering tasks in a list.

Use a formal business-like tone.

The AI Journey

MCP – Model Context Protocol

As the race to move AI agents from prototype to production heats up, the need for a standardized way for agents to call tools across different providers is pressing.

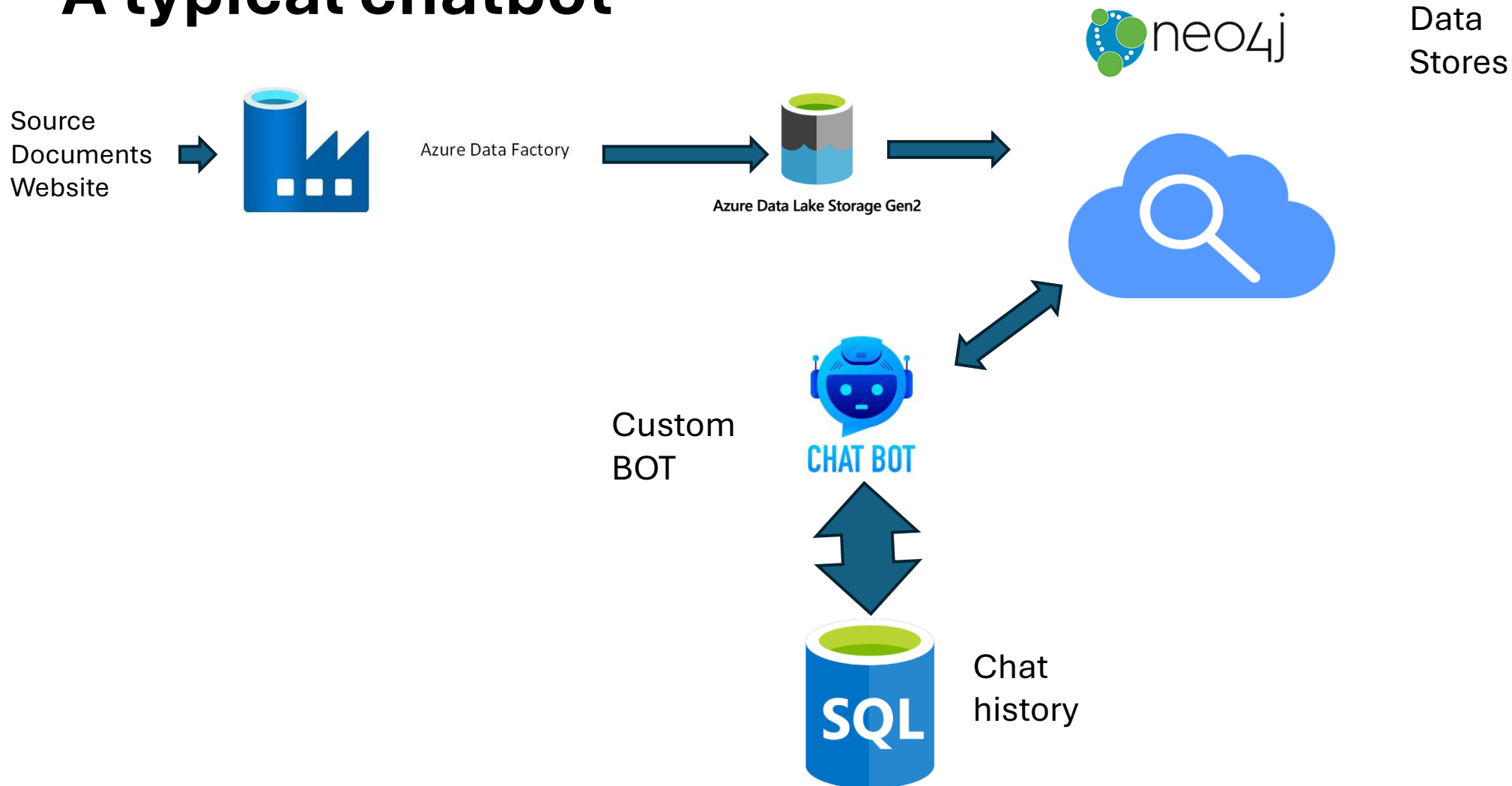
MCP is a way to democratize access to tools for AI Agents.

MCP helps you build agents and complex workflows on top of LLMs. LLMs frequently need to integrate with data and tools.

Facilitate easier integration and communication between AI systems and external data sources.

The AI Journey

A typical chatbot



The AI Journey

Resources

AI-900

[Microsoft Certified: Azure AI Fundamentals - Certifications | Microsoft Learn](#)

AI-102

[Microsoft Certified: Azure AI Engineer Associate - Certifications | Microsoft Learn](#)

Data Engineering is Dead (Or How We Can Use AI to Avoid It...)

[Data Engineering is Dead \(Or How We Can Use AI to Avoid It...\)](#)

Thank You