Building your own MCP server

Stuart van der Lee @ Azure Fest 2025

@stuartvdlee

Software Engineer at Sopra Steria

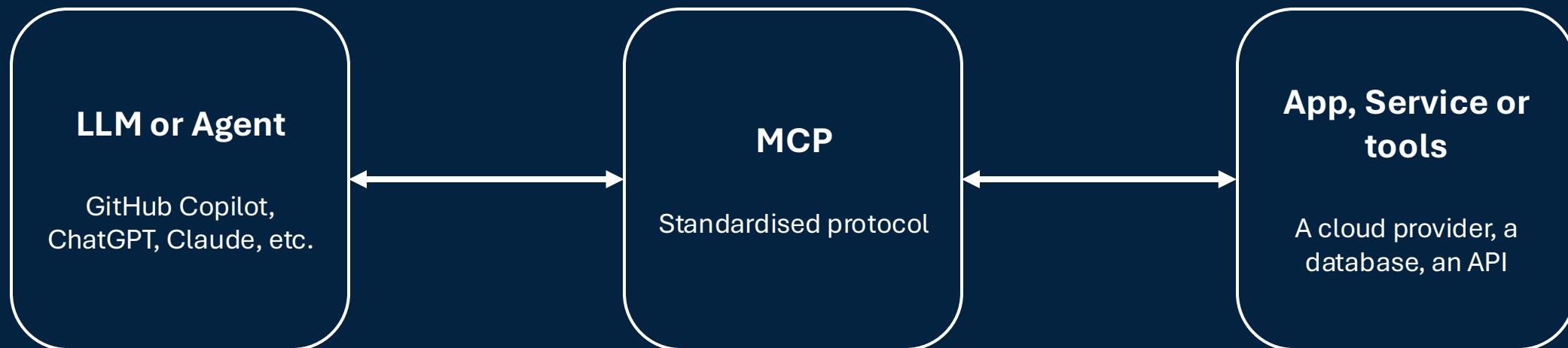Likes watching fast vehicles and lifting heavy things

Likes AI, but also likes being skeptical

What is MCP?

Open-source standard for connecting AI applications to external systems

Think of MCP like a USB-C port for AI applications

What is MCP?

LLM or Agent	MCP	App, Service or tools
GitHub Copilot, ChatGPT, Claude, etc.	Standardised protocol	A cloud provider, a database, an API

What can I help with?

Using the following ingredients, create an Albert Heijn order that includes them.

1 red onion
1 red bell pepper
1 avocado
4 wraps
1 zuivelspread bieslook light
150g salmon flakes
lettuce

MCP server components

	What is it?	Examples	Who controls it?
Tools	Functions that your LLM can actively call and decides when to use them based on user requests. Tools can write to databases, call external APIs, modify files, or trigger other logic.	Search flights Send messages Create calendar events	Model
Resources	Passive data sources that provide read-only access to information for context, such as file contents, database schemas, or API documentation.	Retrieve documents Access knowledge bases Read calendars	Application
Prompts	Pre-built instruction templates that tell the model to work with specific tools and resources.	Plan a vacation Summarize my meetings Draft an email	User

https://modelcontextprotocol.io/docs/learn/server-concepts#core-server-features

Oh my God, it's happening! Everybody stay calm! Stay f*****g calm!

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Thank you!

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