



MICROSOFT MVP x AI

www.oksala.net

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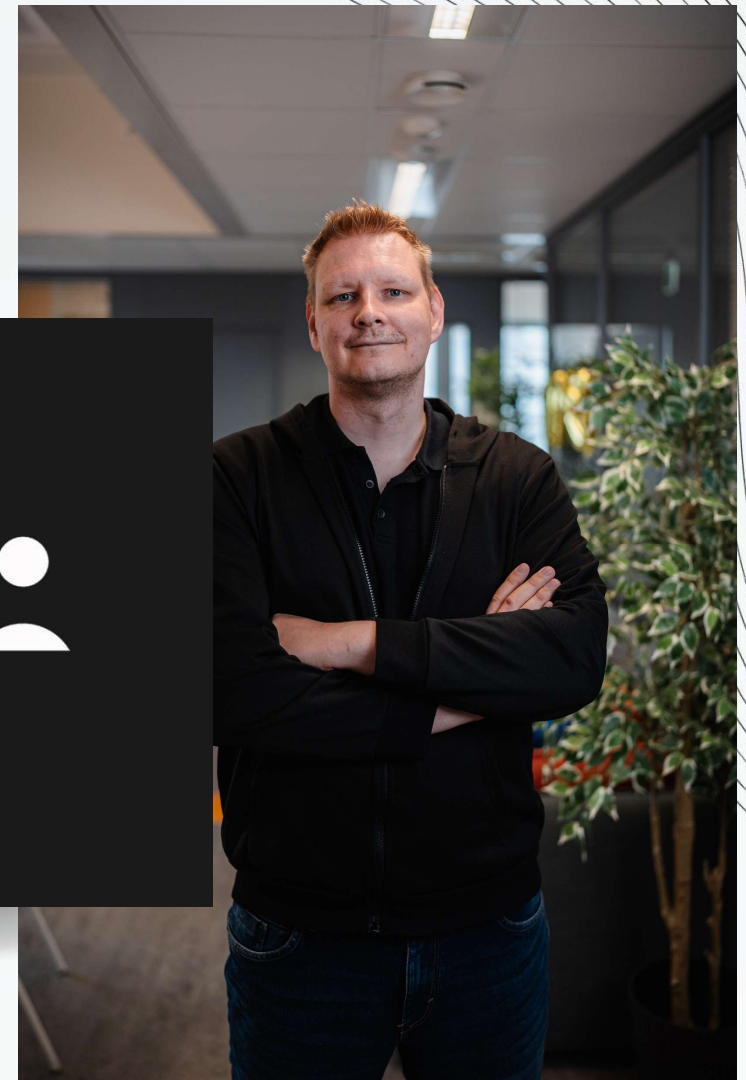
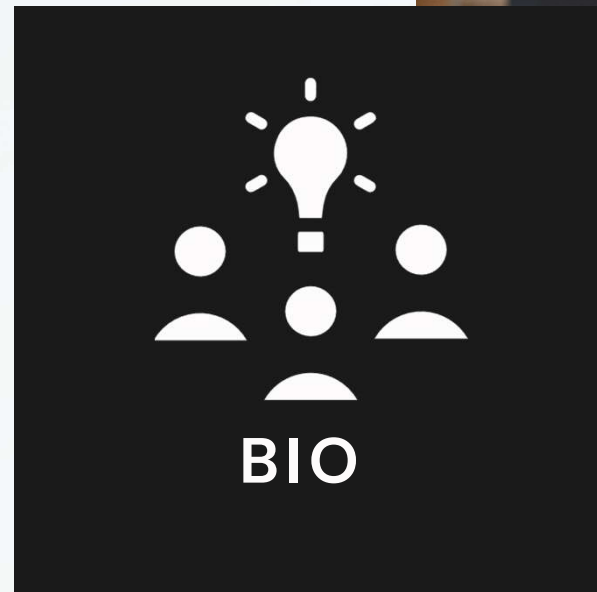
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PANU OKSALA

CTO and Partner @Adafy
Development with Microsoft
technologies since 2009

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Software Engineer (2005-2009)
Professional teacher (2019-2021)
Microsoft .NET MVP (2024)



MVP



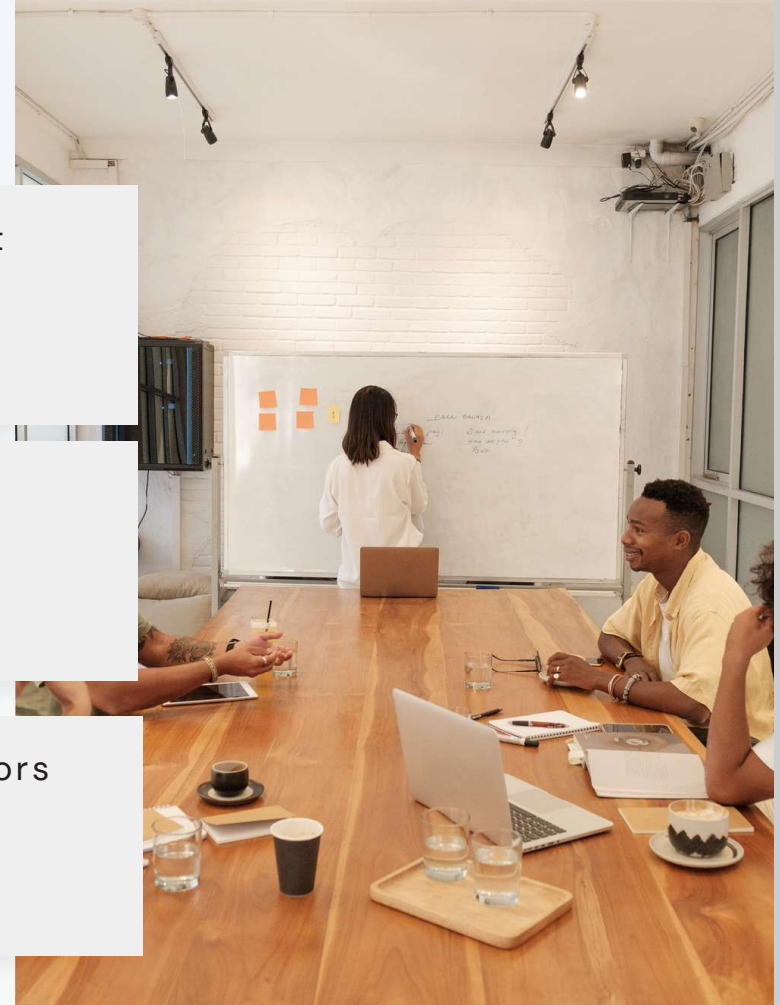
MVP was never my target as I think it is not sustainable if you aim to just one target. MVP is reward of my long, hard work.



I share what I learn. I learn by sharing and structuring information inside my head. Writing things into blog posts or recording videos forces my brain to structure.



MVP award has opened me a lot of new doors and ways to contribute and learn. Like now I'm here with ya all!



TIPS TO BECOMING MVP

MVP TIP n° 1

Who are you?
What is the motivation
that drives you? What
kind of things you are
interested of.

MVP TIP n° 2

Continuously Learn and Adapt.
Embrace lifelong learning and be open to
change. Evolve.

MVP TIP n° 3

Be you. If you fake it, it
wont last long and
eventually you have to
drop your mask

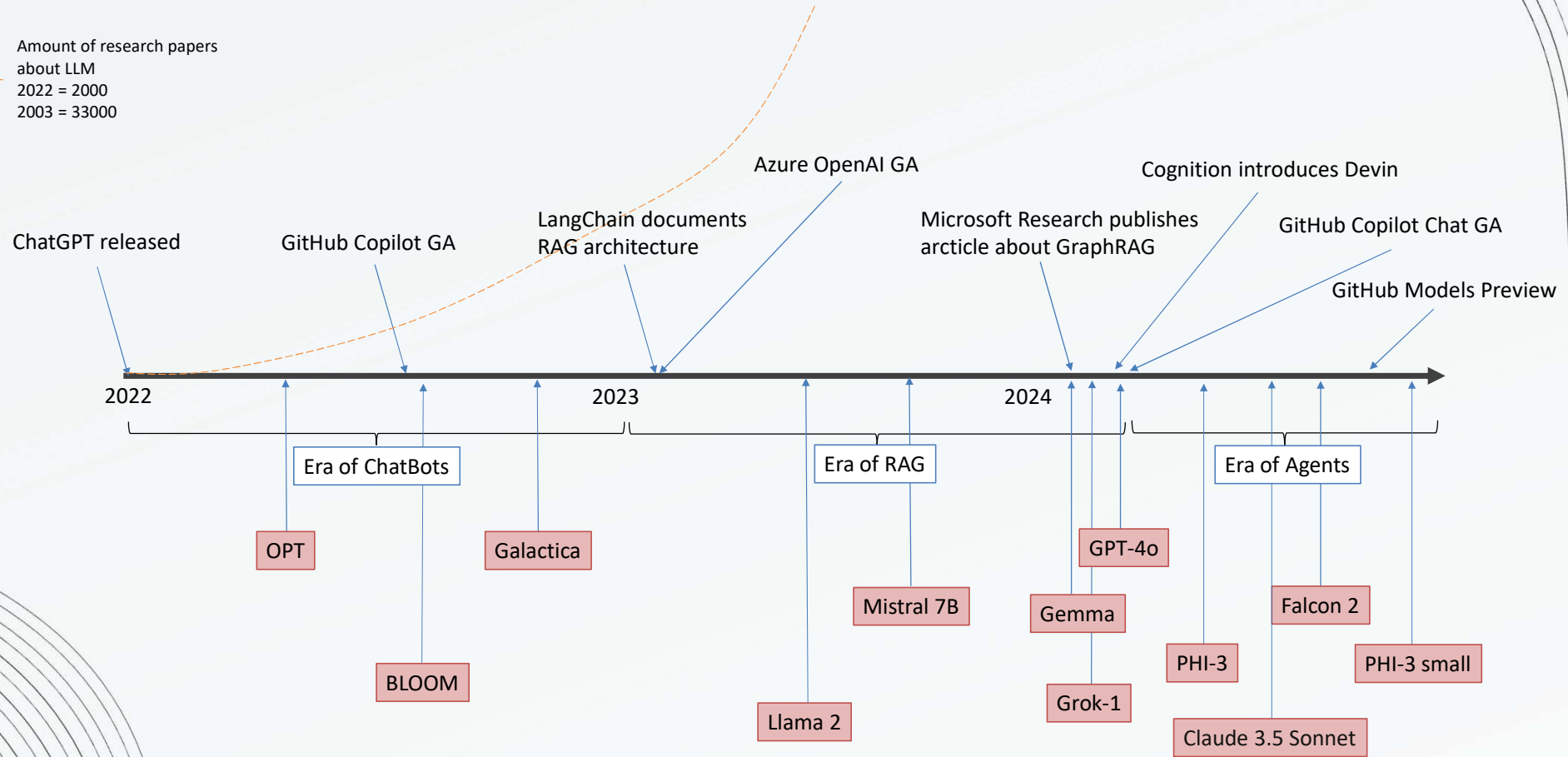




AZURE AI LANDSCAPE

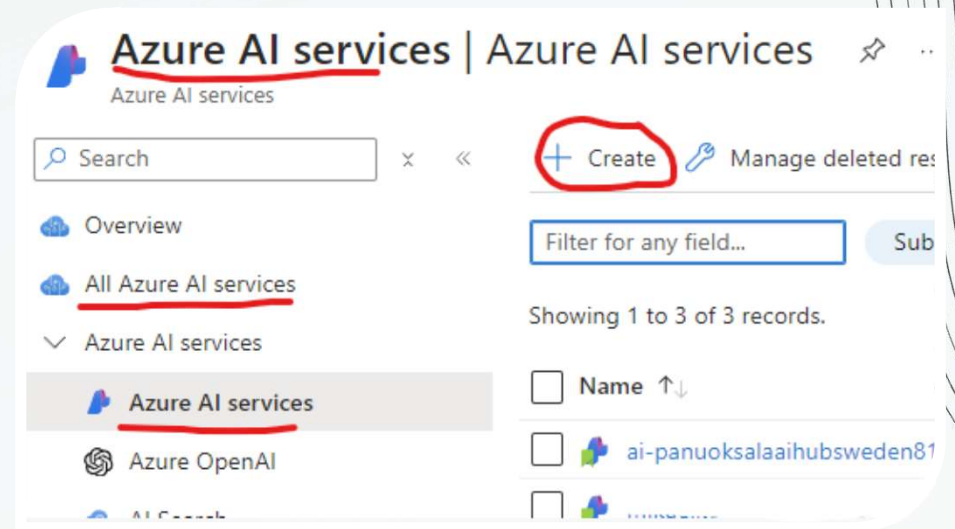
CURRENT STATE OF LLM'S

Amount of research papers
about LLM
2022 = 2000
2003 = 33000























AZURE AI SERVICES

- Azure AI Services is a terminological shit show
- It is a set of traditional ML solutions, combined with LLM solutions and Vector databases
- There are SAAS type of services like Image Analysis and more customizable services like Custom Vision



RETIRING SOLUTIONS

 Azure OpenAI account Perform a wide variety of natural language tasks. + Create View	 AI Search Bring AI-powered cloud search to your mobile and web apps. + Create View	 Computer vision Analyze content in images and videos. Learn more + Create View	 Face API Detect and identify people and emotions in images. Learn more + Create View	 Custom vision Customize image recognition to fit your business. Learn more + Create View
 Speech service Speech to text, text to speech, translation and speaker recognition. Learn more + Create View	 Language Service Build apps with industry-leading natural language understanding capabilities. Learn more + Create View	 Translator Translate more than 100 languages and dialects. Learn more + Create View	 Document intelligence Turn documents into usable data at a fraction of the time and cost. + Create View	 Bot services Create bots and connect them across channels. + Create View
 Anomaly detector Identify potential problems early on. Learn more + Create View	 Content moderator Detect potentially offensive or unwanted content. Learn more + Create View	 Health Insights Health Insights + Create View	 Personalizer Create rich, personalized experiences for each user. Learn more + Create View	 Metrics advisor Proactively monitor metrics and diagnose issues. + Create View
 Immersive reader Help users read and comprehend text. + Create View	 Azure AI services multi-service account Add multiple Azure AI services to your application. + Create View	 Content safety An AI service that detects unwanted contents. Learn more + Create View	 Language understanding (classic) Understand natural language in your apps. Learn more + Create View	 QnA maker (classic) Distill information into easy-to-navigate questions and answers. Learn more + Create View

LLM SOLUTIONS



The place to build LLM solutions.

Supports Huggingface models, but only 50 is served as serverless API
Has build-in playground and deployment support.

AZURE AI STUDIO



Don't use. Offers subset of Azure AI Studio functionality. Could be maybe better if you plan to ONLY use OpenAI...

AZURE OPENAI STUDIO



Customize Microsoft Copilot for Microsoft 365 or build your own copilot experiences.

Low-code solutions for adding functionality into Copilots

COPILOT STUDIO



With AI Builder you can create and use AI models that optimize your business processes. You can use a prebuilt model or create a custom model

Build for Power Platform

AI BUILDER

The background is a solid black rectangle. On the left side, there is a complex, overlapping pattern of thin white lines that form a series of curved, parallel shapes, resembling a stylized wave or a fan of lines. On the right side, there is a simpler pattern of several parallel, wavy white lines that flow vertically across the frame. In the center, the text 'AZURE AI STUDIO' is written in a large, bold, white, sans-serif font. Below it, the word 'DEMO' is written in a slightly smaller, bold, white, sans-serif font.

AZURE AI STUDIO
DEMO

SEMANTIC KERNEL



Semantic Kernel is an open-source development kit that lets you easily build AI agents and integrate the latest AI models into your C#, Python, or Java codebase



Semantic Kernel was designed to be future proof, easily connecting your code to the latest AI models evolving with the technology as it advances



Visit Semantic Kernel GitHub page <https://github.com/microsoft/semantic-kernel> for samples and guides.



KEY CONCEPTS

01

AGENTS

Agents are software-based entities that leverages AI to do work for you. With Semantic Kernel we can build chatbots, copilots and fully autonomous bots.

02

KERNEL

Kernel is the central component of Semantic Kernel. It holds all the services and plugins that are required to run your AI application.

03

AI SERVICES

In Semantic Kernel you can add different AI services into the kernel. This allows you to easily swap out different AI services.

04

PLUGINS

With plugins, you can give your AI the ability to perform actions that it wouldn't be able to do otherwise. Behind the scenes, Semantic Kernel leverages native function calling feature

GETTING STARTED

Easiest way to get started with Semantic Kernel is to create new console app and try it out. Microsoft has same ready-made samples, but in my experience the learning is better by writing compared to reading

Install the Semantic Kernel SDK with
dotnet add package Microsoft.SemanticKernel

INSTALLING

Create kernel object:
Kernel kernel =
builder.Build();

KERNEL

Add AI Services like
Azure Open AI and
invoke the AI agent
with
GetChatMessageContentAsync

INVOKE



SEMANTIC KERNEL DEMO

THANK YOU

*My name was Panu Oksala
checkout my blog at <https://oksala.net>
and send a LinkedIn connection if you
are passionate about the Microsoft
development stuff
If you are travelling/living in Jyväskylä,
join our new Azure meetup group JAUG*

