Here's Johnny
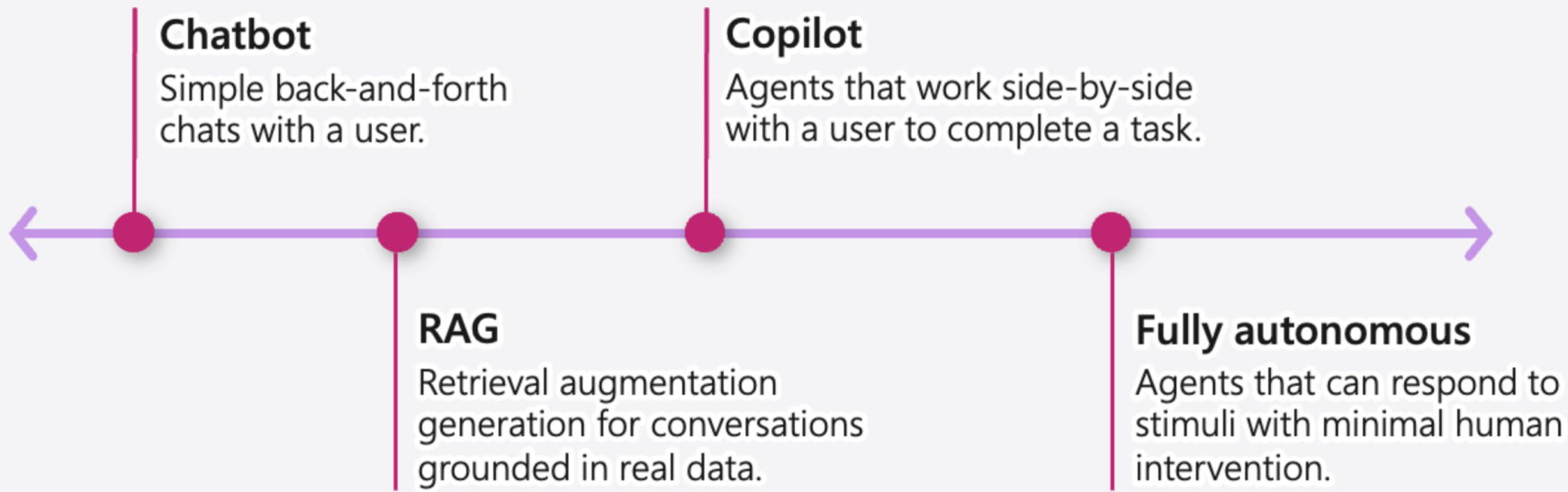
- Passionate Developer
- Principal Software Consultant/Architect (.NET)
- Microsoft MVP, Developer Technologies
- Operational Manager at Involved

in Johnny Hooyberghs

✉ johnny.hooyberghs@involved.be

Microsoft Zero To Hero   https://github.com/Djohnnie/BuildingAnAIAgentUsingSemanticKernel-MicrosoftLearnZeroToHeroCommunity-2024

Chatbot
Simple back-and-forth chats with a user.

Copilot
Agents that work side-by-side with a user to complete a task.

RAG
Retrieval augmentation generation for conversations grounded in real data.

Fully autonomous
Agents that can respond to stimuli with minimal human intervention.

Microsoft Zero To Hero

https://github.com/Djohnnie/BuildingAnAIAgentUsingSemanticKernel-MicrosoftLearnZeroToHeroCommunity-2024

Semantic Kernel

Plugins

Planners

Personas

https://github.com/Djohnnie/BuildingAnAIAgentUsingSemanticKernel-MicrosoftLearnZeroToHeroCommunity-2024

Semantic Kernel

Application

Invoke prompt

Select AI Service → Render Prompt → Invoke AI Service

Model selection

Templatization

Reliability

Event Notifications

Kernel

Responsible AI

Telemetry and monitoring

Create Function Result ← Parse LLM Response

Return results

Models

OpenAI HUGGING FACE

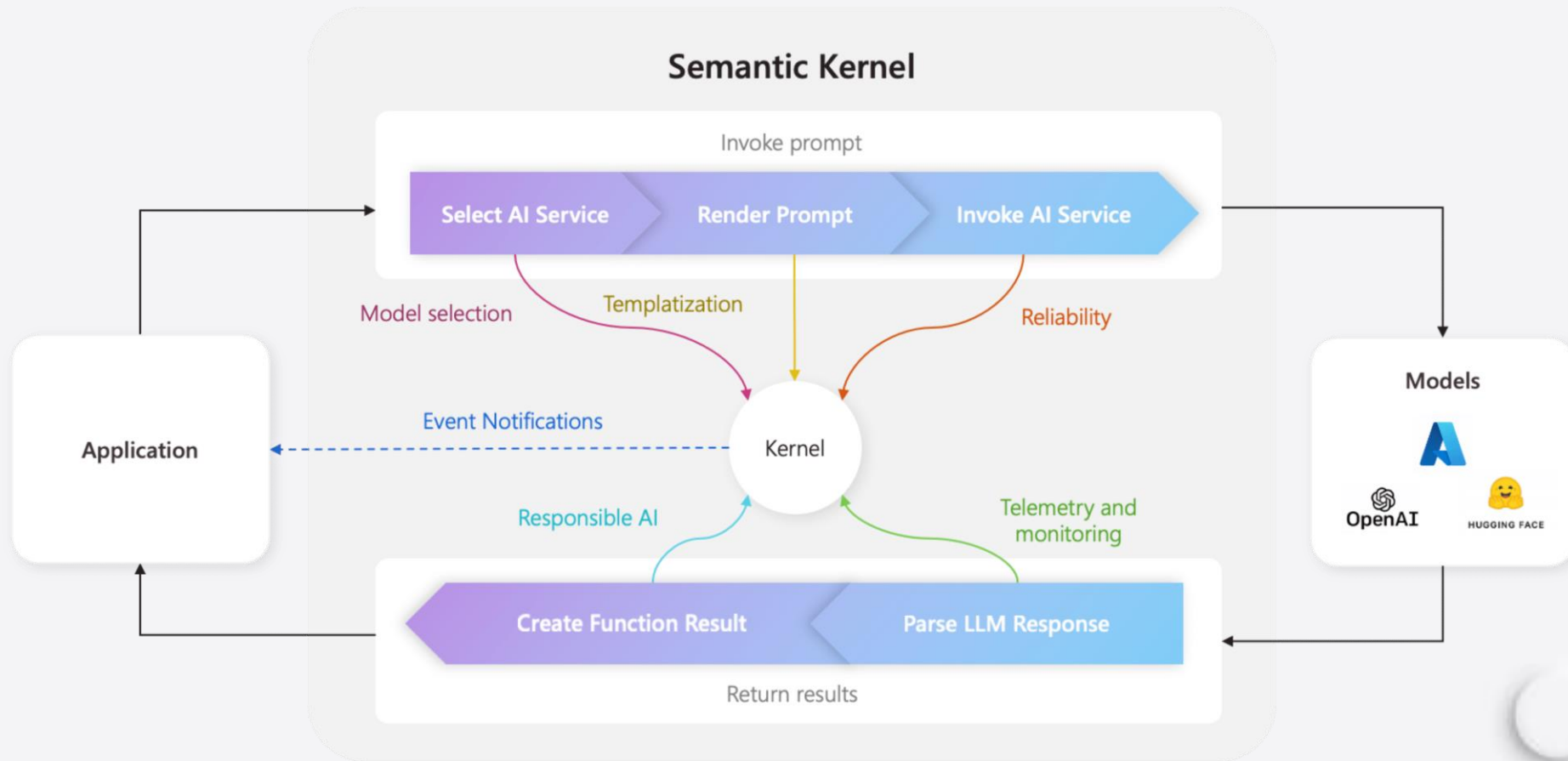https://github.com/Djohnnie/BuildingAnAIAgentUsingSemanticKernel-MicrosoftLearnZeroToHeroCommunity-2024

Supported Semantic Kernel languages

- C#
- Python
- Java

Supported AI Endpoints
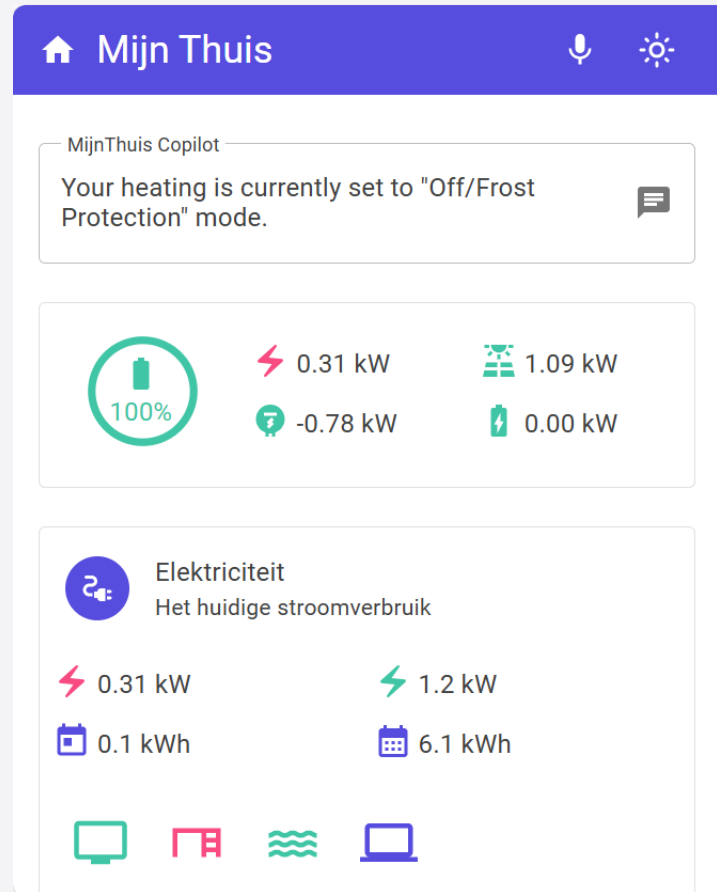
- OpenAI

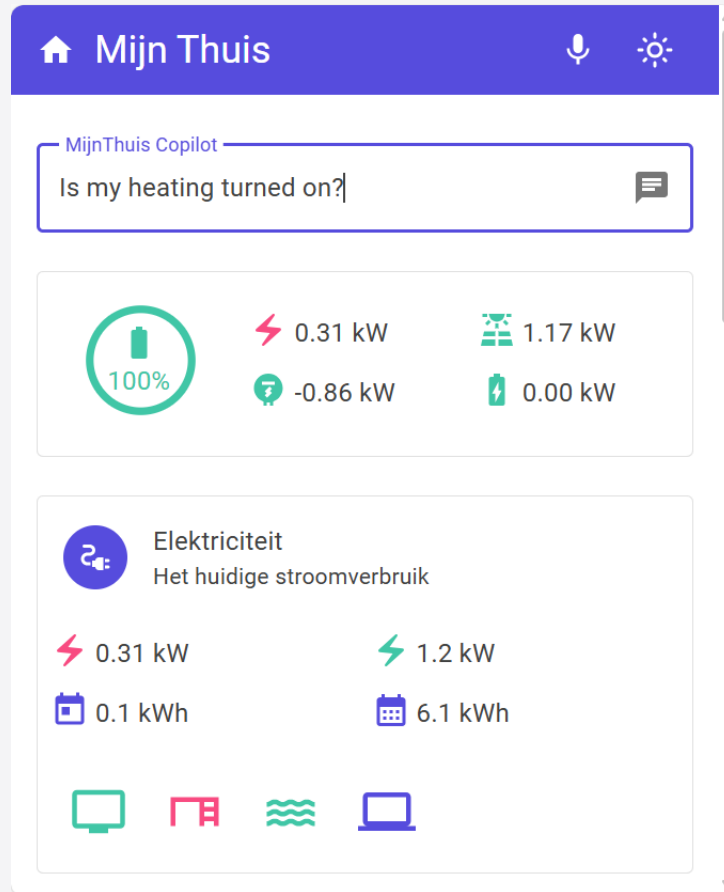- AzureOpenAI

- Hugging Face

- Custom

Examples

1. Prompts
2. Chat Completion
3. Chat History
4. System Messages
5. Native Functions
6. Native Functions in a real-life scenario
7. Handlebars
8. Handlebars is a real-life scenario
9. Planners

https://github.com/Djohnnie/BuildingAnAIAgentUsingSemanticKernel-MicrosoftLearnZeroToHeroCommunity-2024

MijnThuis Example

https://github.com/Djohnnie/BuildingAnAIAgentUsingSemanticKernel-MicrosoftLearnZeroToHeroCommunity-2024

CSharpWars Example

Welcome djohnnie

Please select a script template to start playing!

Name for your robot

CoPilot robot

Starting health for your robot   Starting stamina for your robot

100   100

Write your AI prompt to generate a custom robot script

Create a robot that self-destructs after 5 rounds.

Generate your custom script

Your custom script (copy/paste from Visual Studio or generate using Azure OpenAI)

```
var round = LoadFromMemory<int>("ROUND");
round++;

if (round <= 5)
{
    WalkForward();
}
else
{
    SelfDestruct();
}

StoreInMemory<int>("ROUND", round);
```

Thank you!