



Where Technology Is Heading & How Businesses Can **Prepare**

📅 Sept 5, 2025

Meet Alexander De Ridder

Sourced from Bruges, Belgium and living in Texas since 2006, I have been in the field of machine learning for 16 years and built two marketing agencies.

I am a 3X bootstrap-to-exit serial entrepreneur, with multiple AI patented solutions used at the largest companies on earth. I am a sought after global speaker on AI and marketing, appearing on 40+ podcasts and conferences last year.

I am a thought leader in AI, widely respected for my innovation, vision, and expertise in leveraging AI for business impact.



Connect with me to have me as a guest on your podcast, learn more about AI agents increasing your productivity and more.

[LinkedIn: @adridder](#)
[Twitter/X: @adridder](#)

Under a Minute

What is SmythOS?

- SmythOS is an orchestration platform that lets you build, debug and deploy production ready ai agents.
- Linux-style kernel + orchestration kernel = SmythOS.

The screenshot displays the SmythOS interface. At the top left is an 'Agent LLM' card with a cloud and AI icon. In the center is a 'Code' editor showing a Node.js script for interacting with the OpenAI API. Below the code is a 'Key' section with a 'Production key' and a timestamp. At the bottom left is a 'Competitor analysis Agent' card featuring a profile picture of a woman, the name 'Competitor analysis Agent', and the creator 'By Alexander', along with 'Edit' and 'Chat' buttons.

```

POST /chat/completions nodes
API Key: None Version: Dev (Current)

import openai from "openai";
const openai = new OpenAI({
  apiKey: process.env.OPENAI_API_KEY,
  baseURL: "https://llm.smyth.ai/openai/v1",
});
const response = await openai.chat.completions.create({
  model: "cml42g9370hncz5mtr1v1gdev",
  // available agents:
  // cml42g9370hncz5mtr1v1gdev: use the current in-development agent
  // cml42g9370hncz5mtr1v1gprod: use the latest deployed agent
  // cml42g9370hncz5mtr1v1gde: use v1.0 of the deployed agent
  // (you can specify any deployed version)
  messages: [
    {
      role: "user",
      content: "hello, what can you do?",
    }
  ],
  stream: false,
});
console.log(response.choices);
  
```

Key

Production key
 sk-*****
 February 7, 2025 at 6:43 PM

Competitor analysis Agent
 By Alexander
 Edit Chat

The screenshot shows the 'Agent Weaver' chat interface. The chat window contains a greeting: 'Hello, I'm Agent Smyth Weaver! I can assist you in building your agent from the ground up. Simply describe what you need it to do, and I'll help you create it.' Below the chat is a workflow diagram with nodes for 'Generate Forecast', 'Generate Report', and 'Report Generation'. Each node includes a description of its function and a list of available agents (e.g., 'weekly sales forecast', 'comprehensive report using AI'). A 'Form Preview' button is visible at the bottom of the workflow.

Agent Weaver

Hello, I'm Agent Smyth Weaver! I can assist you in building your agent from the ground up. Simply describe what you need it to do, and I'll help you create it.

Generate Forecast
 Generates sales forecast using AI
 Agents: weekly sales forecast, sales data, campaign data, impact analysis

Generate Report
 Generates comprehensive report using AI
 Agents: comprehensive report using AI, sales data, campaign data, impact analysis

Report Generation
 Generates comprehensive report using AI
 Agents: comprehensive report using AI, sales data, campaign data, impact analysis

Form Preview
 Just Created By Weaver

Create a sales forecasting agent that combines Attributable sales data and Google Ads metrics to analyze campaign impact, generate weekly forecasts, and produce comprehensive performance reports. The agent should process data sequentially and maintain analytical focus.

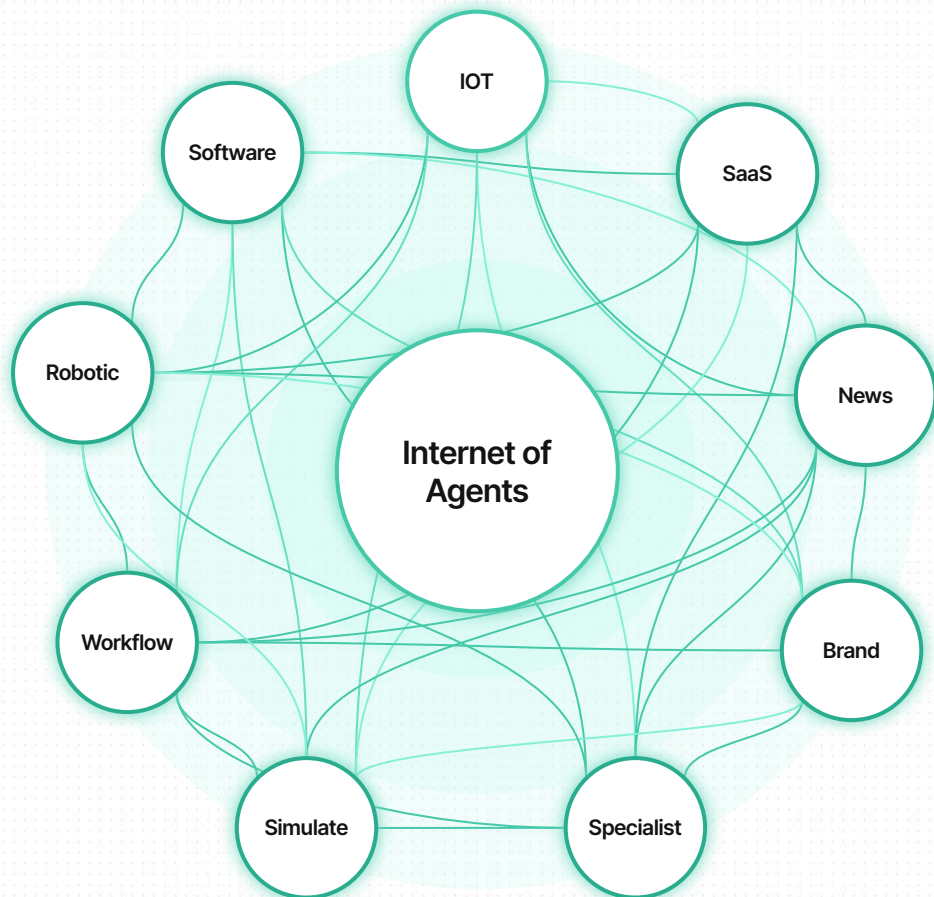
The Internet of Agents

Analogies

- Website → Brand Agent
- Browser → Personal Agent
- Web 2.0 → Internet of Agents

IoA Protocols

- HTTP/2 → MCP
- REST → AGP
- WebSocket → A2A

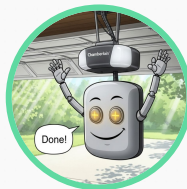


Types of Agents



Personal agents are a type of orchestrator.

Think of a team manager.



Brand agents are agents that represent a company.

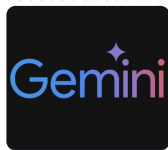
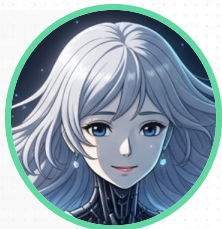
Think of a sales or support agent.



Process agents are agents that have specialized skills or knowledge.

Think of an SEO specialist agent.

Personal Agents



You will talk with and see your personal assistant.

Prediction: losing your personal agent of many years would feel like a painful breakup.

Prediction: new form factors will arise, but the most popular will be one where you can see, hear and work with your agent in augmented reality.

Question: would you prefer such agent to be owned by you, or would you trade convenience and latest capabilities for privacy?

MOSI: Practical Solutions to the Largest Enterprise Challenges

Primary Industry Challenges

Missing Pieces (MOSI)

Memory layer

Orchestration & monitoring layer

Security layer

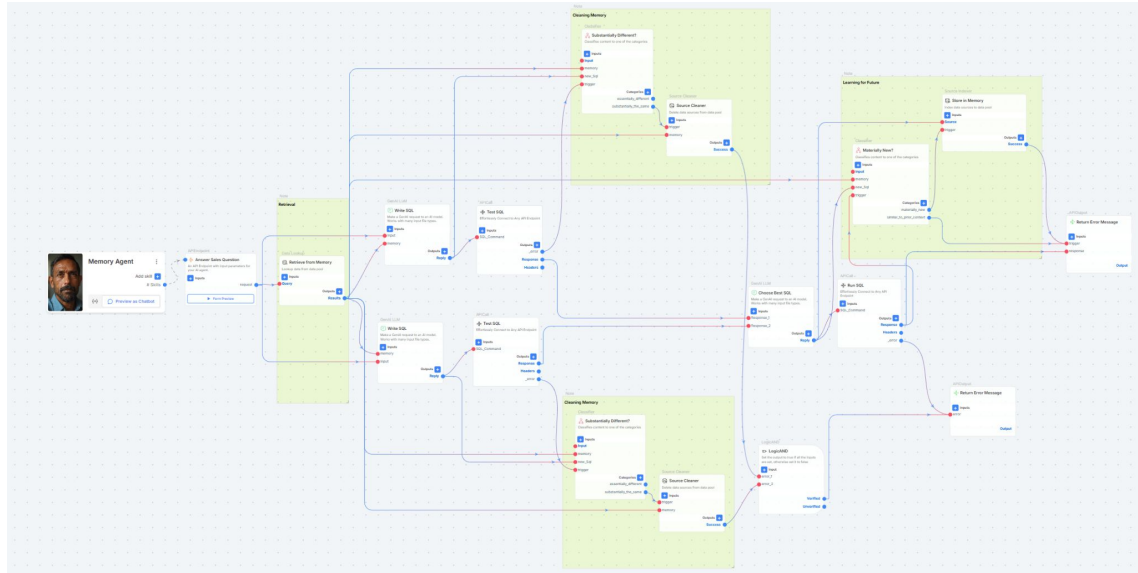
Interoperability / Connectivity layer

- AI Native Tools (Loveable, Cursor, Vercel V0) are exploding –> But remain prototype first
- Enterprises need durable agents + workflows
- Category shift - from “demo AI” to “production AI”

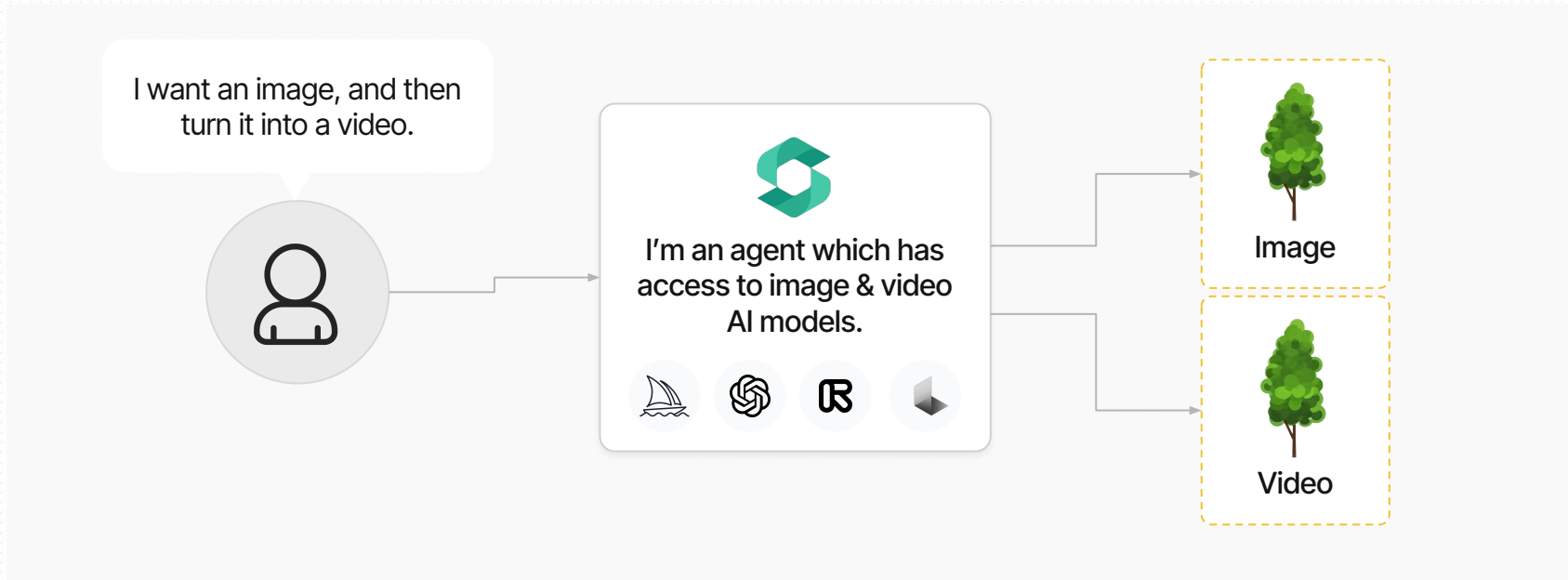
The GenAI Divide is starkest in deployment rates, only 5% of custom enterprise AI tools reach production. Chatbots succeed because they're easy to try and flexible, but fail in critical workflows due to lack of memory and customization. This fundamental gap explains why most organizations remain on the wrong side of the divide

Memory: Agents that Learn

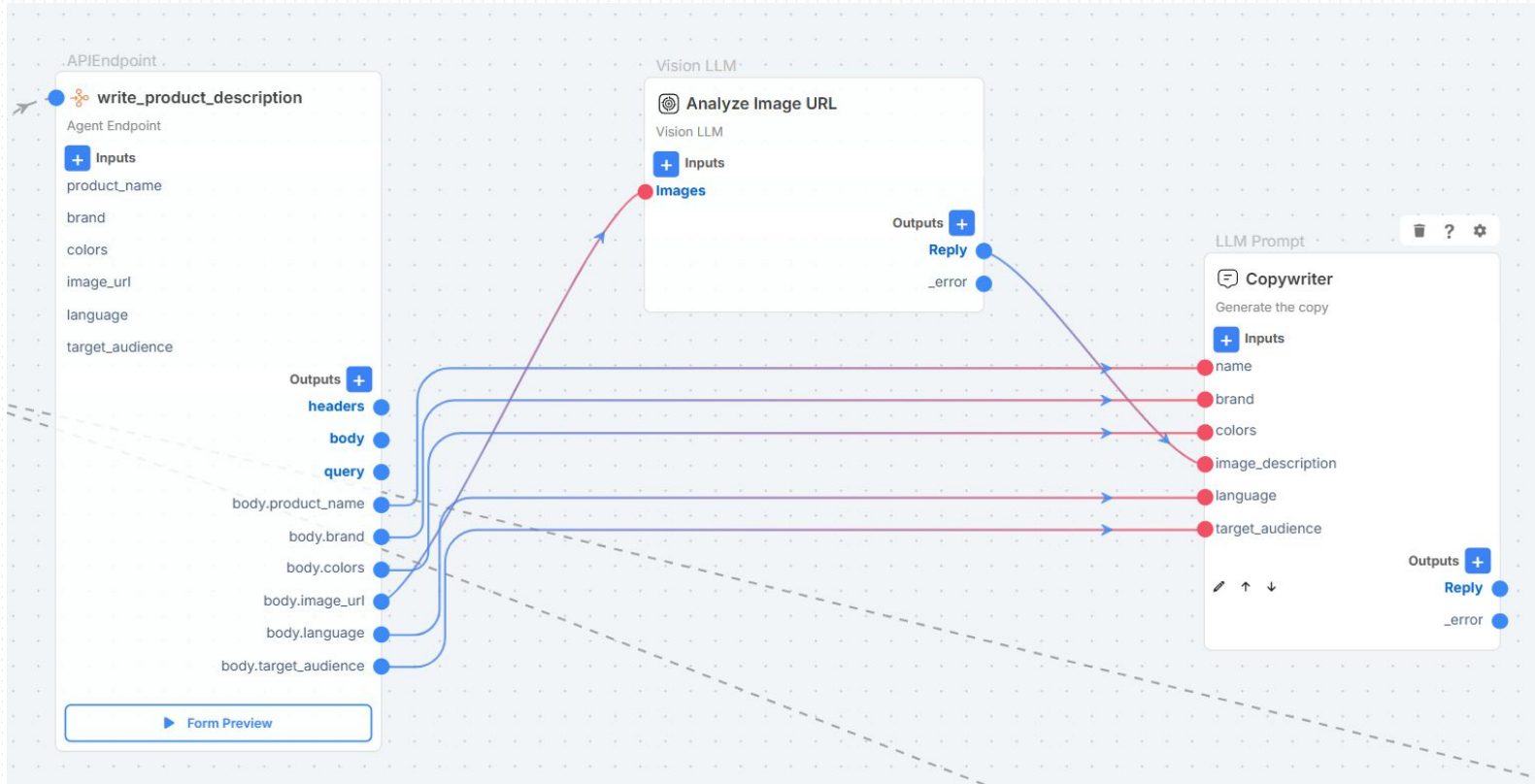
- Receive a sales question
- Retrieve relevant context from a data source (memory)
- Generate SQL queries based on the question and memory
- Test those queries against a database
- Store successful results back into memory for future use
- Forget context that was unhelpful or wrong
- Remember if solution was new and successful
- Respond to user



Orchestration: Discovering



Orchestration: Example



Security: Data Governance

SmythOS Default Security

Zero-Trust by Default

Data Isolation

Secrets Protection

Flexible Deployments

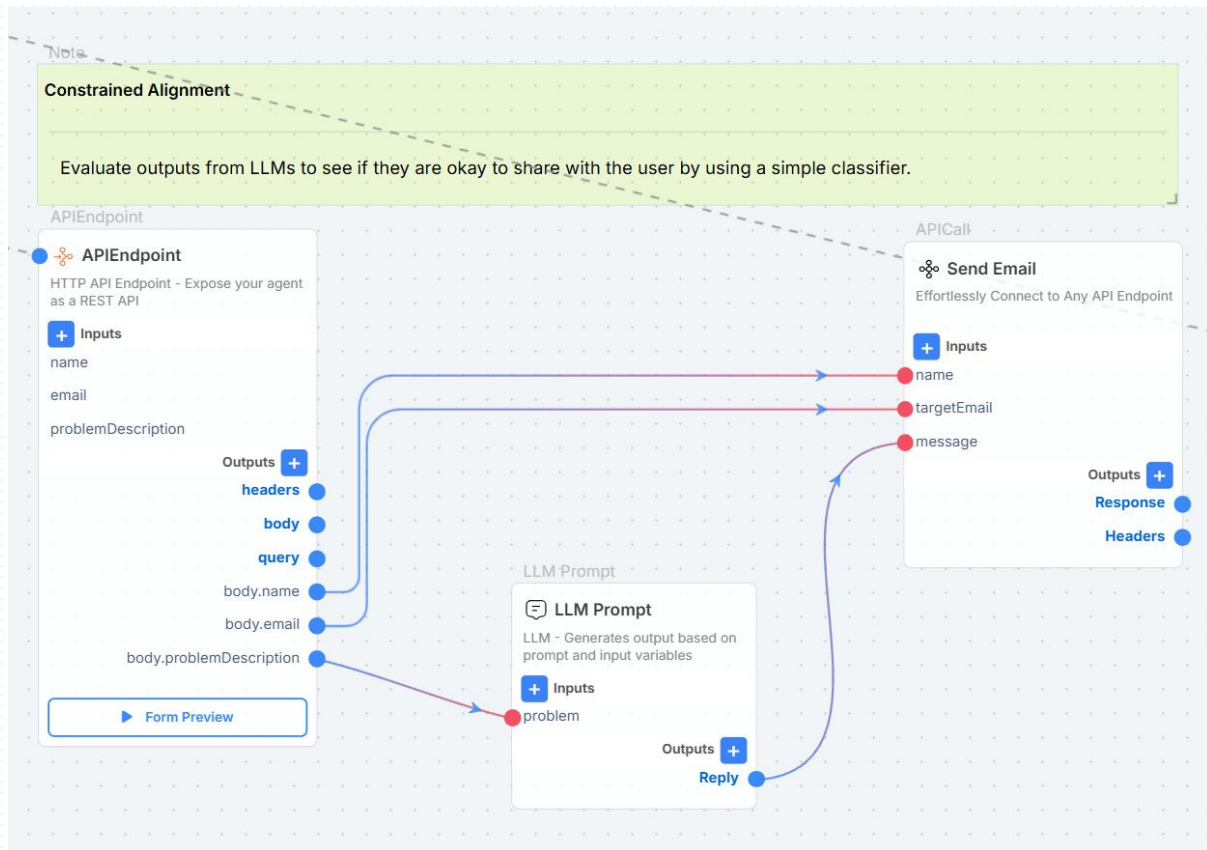
LLM Security Options

Sandboxed Execution Audit &

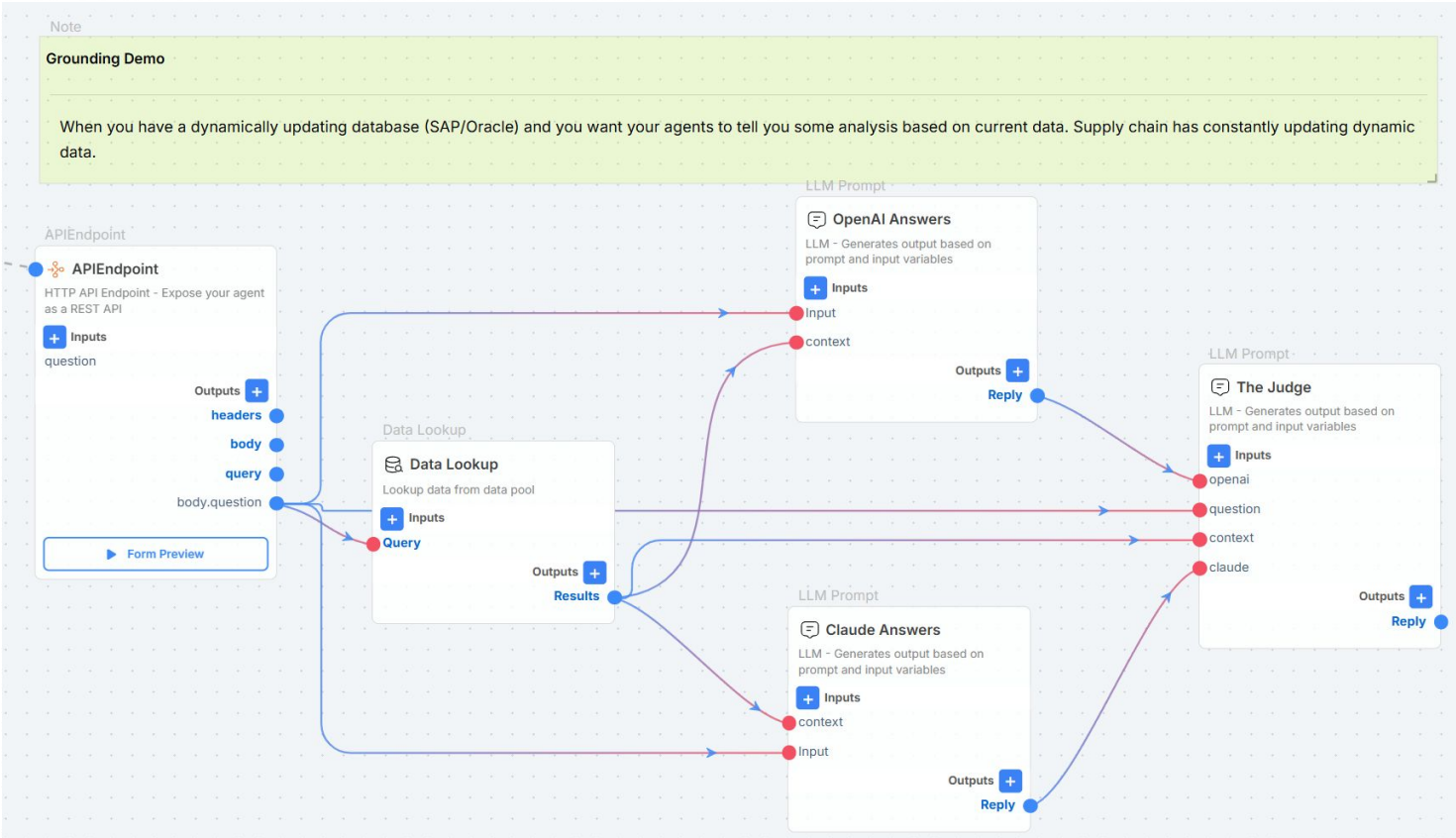
Observability Strong

Encryption

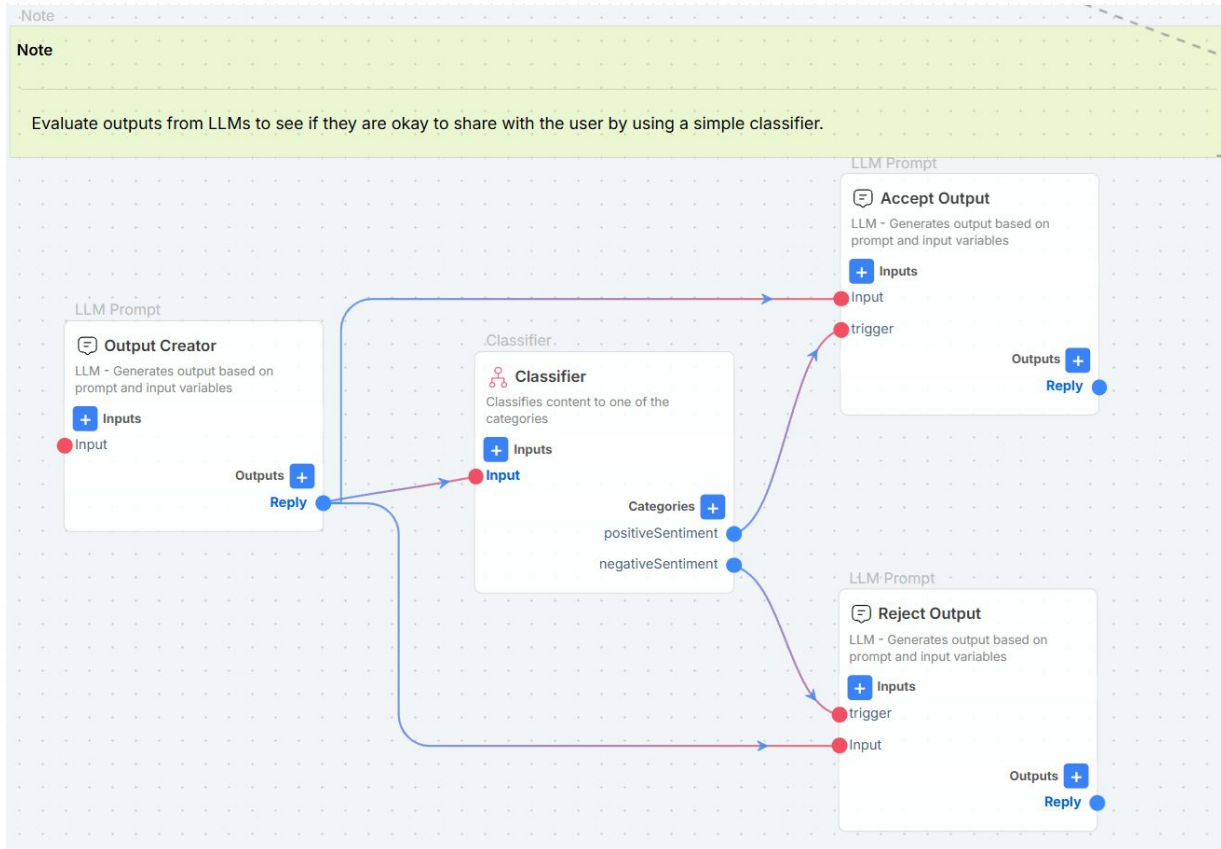
Modular Architecture



Security: Misinformation



Security: Verifying Output

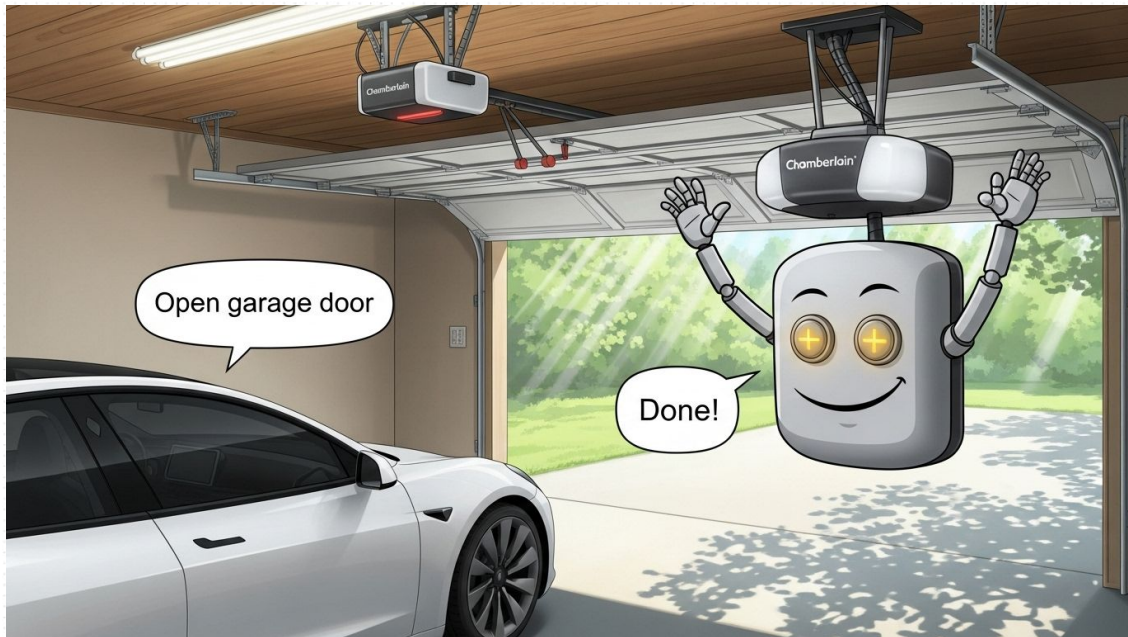


Interoperability: Agent Collaboration

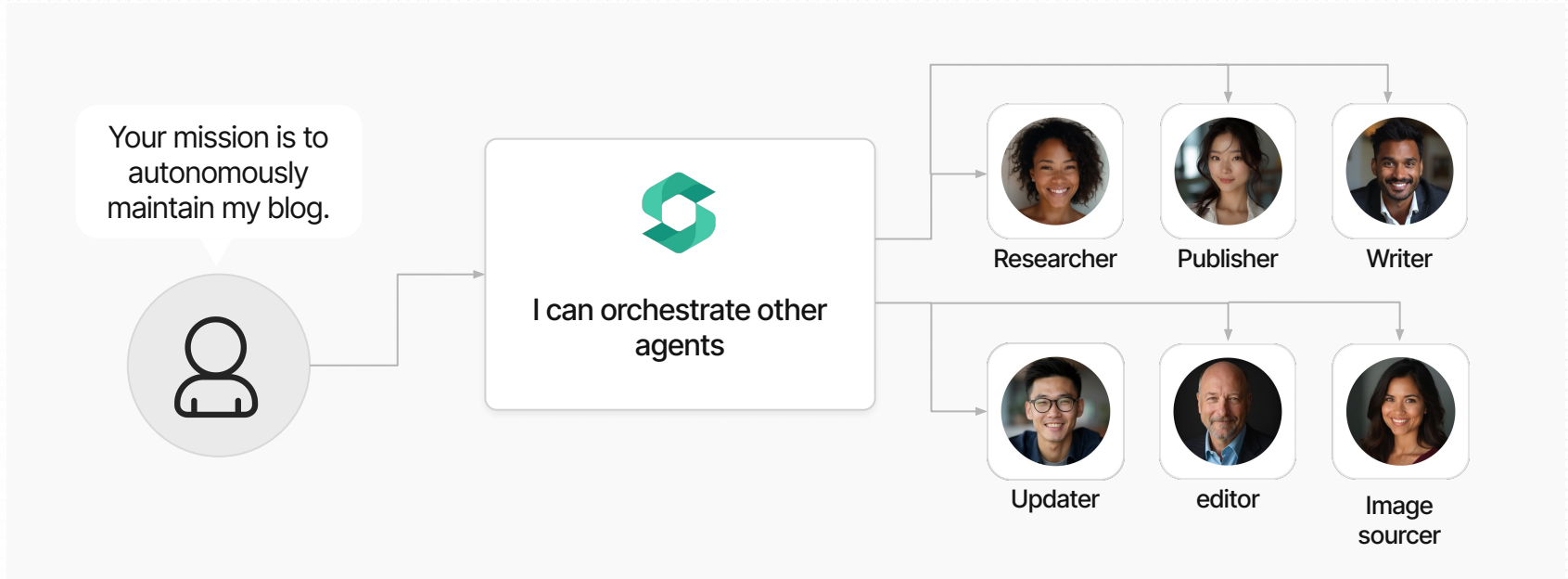
How agents work together.

Today's technology is disjointed, segmented, does not work together for your benefit.

Humans act as "orchestrators".



Interoperability: Agent In the Loop



Interoperability: In Practice

The screenshot displays the 'Emerson's Team Dashboard' within the SmythOS interface. On the left is a navigation sidebar with options: Home, Subdomains, Data Pool, Analytics, Vault, Templates, and Space Settings. The main dashboard area is titled 'Emerson's Team Dashboard' and includes a user profile dropdown for 'Emerson'. It features a grid of AI agent cards, each with a unique avatar and name, all created by 'Sumbo Bello'. Each card includes 'Edit' and 'Chat' buttons. The agents shown are:

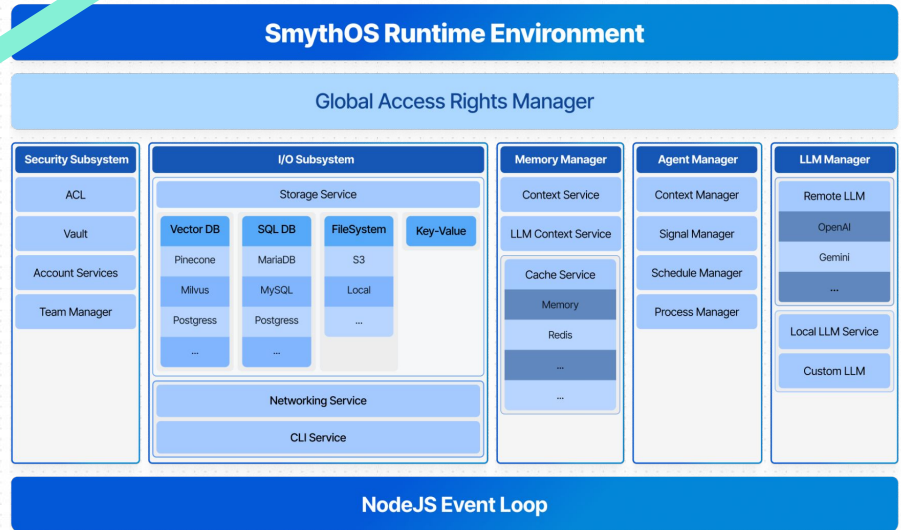
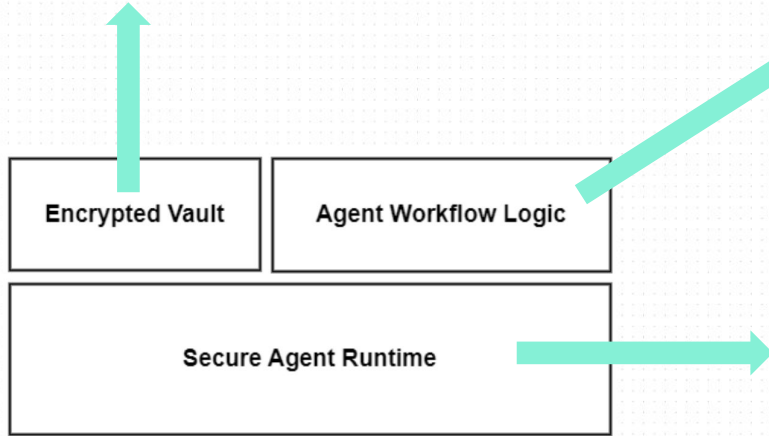
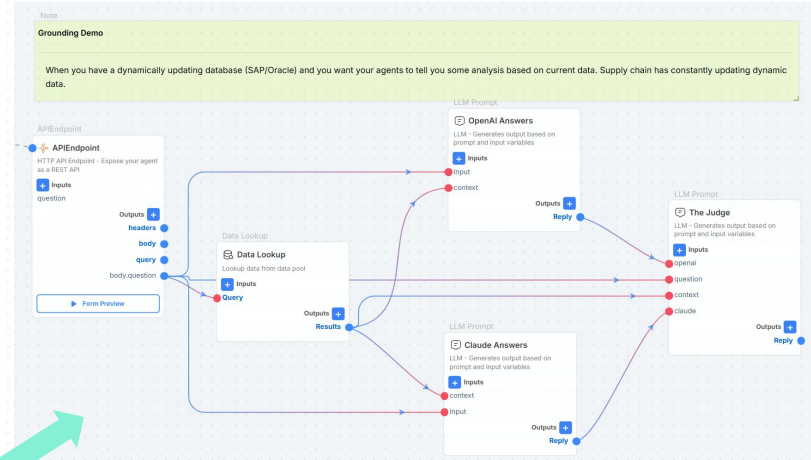
- WRITER**: Represented by a cartoon character with a top hat and a book.
- ARTIE**: Represented by a cartoon character with a top hat and a bow tie.
- OUTLINER**: Represented by a cartoon character with a top hat and a red chair.
- TWEETY**: Represented by a cartoon character with a top hat and a Twitter bird.
- TABBY**: Represented by a cartoon character with a top hat and a book.
- MARSHALL**: Represented by a cartoon character with a top hat and a book.
- REFRESHER**: Represented by a cartoon character with a green hat and a red bow tie.
- TEST FLOW**: Represented by a cartoon character with a top hat and a book.
- FINN**: Represented by a cartoon character with a top hat and a book.

A team of agents **collaborates** as researchers, writers, editors, publishers and more.

Under The Hood

Agent Anatomy

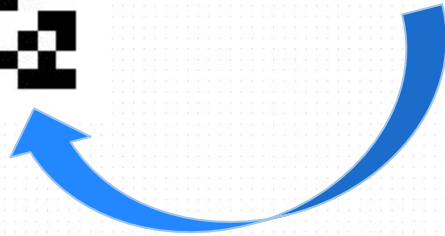
Name	Owner	Scope	Key
AWS Key ID (m394szykr...)	alexander@inkco.co	CUSTOM_LLM
AWS Secret Key (m394s...	alexander@inkco.co	CUSTOM_LLM
Zapier - alexander@ink...	alexander@inkco.co	ZapierAction
Scrapingbee API Key	chelle@smythos.com	APICall
GitHub Key - raul@inkco....	raul@inkco.co	APICall
resend API key - teite@in...	teite@inkco.co	APICall
Stripe	teite@inkco.co	APICall
Clickup Tasks Counter Key	raul@inkco.co	APICall
Clickup Key	raul@inkco.co	APICall



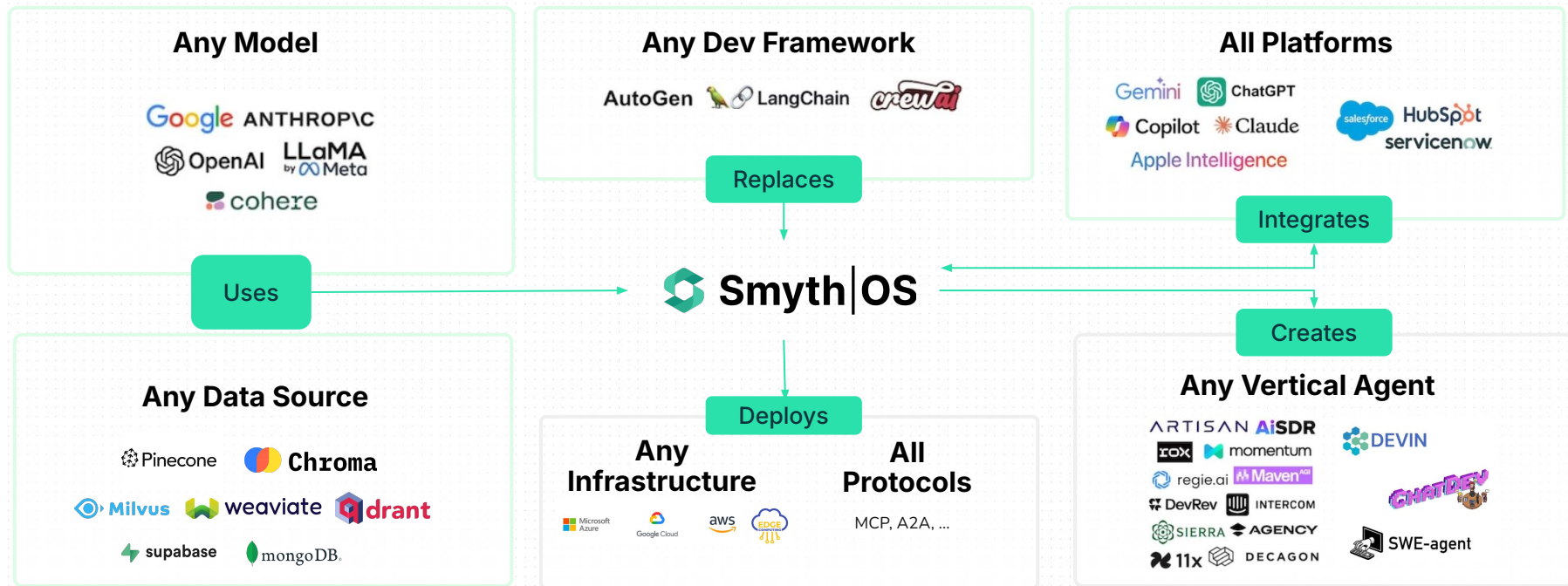
Support Open Source



Take a moment to star our GitHub Repository.



Integrate anything. Deploy anywhere.



SmythOS additionally creates APIs, LLMs, MCP servers, ... embeddable chats, forms and more!

Orchestrate your own LLM

Build Mixture of Experts

When you use ChatGPT, you're not directly interacting with the LLM, you're interacting with an agent that perceives your intent, and routes it to the right tool or model for the job.

Now, you can build your own mixture of experts, not limited to one vendor or a specific tool.

Build Reasoners

Thanks to the SmythOS conversation manager, any AI model can be turned into a reasoner, because agents have an internal dialogue.

Go beyond the limits of AI models and build Agent LLMs.

Universal App Integration

Because SmythOS publishes your agent over a standard OpenAI SDK, which is universally adopted by LLM providers, you can swap your regular 'dumb' AI model with a smart AI Agent LLM. Just update the base URL and key, and everything will keep working.

Code

Keys

Use your agent like an OpenAI-compatible API. Seamlessly integrate it into your applications to send prompts and receive responses using standard OpenAI endpoints, such as `/chat/completions`. No SDK changes required.

Base URL: `https://llm.emb.smyth.ai/_openai/v1`

POST /chat/completions

nodejs ▾



API Key: None ▾

Version: Dev (Current) ▾

```
import OpenAI from "openai";

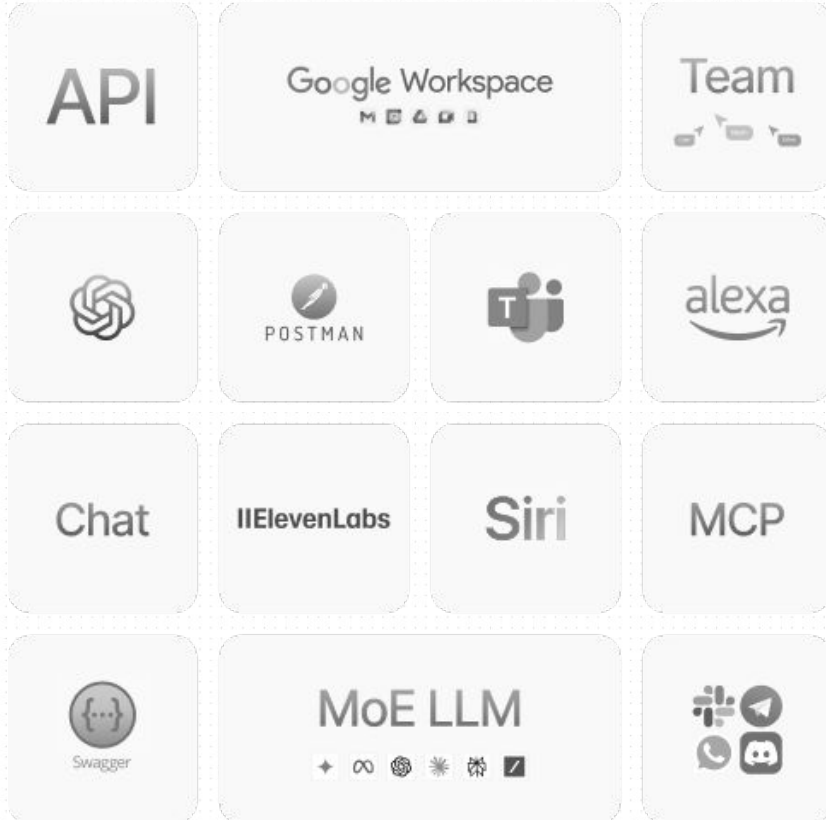
const openai = new OpenAI({
  apiKey: process.env.SMYTHOS_AGENTLLM_KEY,
  baseURL: "https://llm.emb.smyth.ai/_openai/v1",
});

const response = await openai.chat.completions.create({
  model: "cmf4k2xyiej11fk5t514u5ggy@dev",
  // Available options:
  // cmf4k2xyiej11fk5t514u5ggy@dev: use the current in-development agent
  // cmf4k2xyiej11fk5t514u5ggy@prod: use the latest deployed agent
  // cmf4k2xyiej11fk5t514u5ggy@1.0: use v1.0 of the deployed agent (you can specify any deployed version)

  messages: [{
    role: "user",
    content: "Hello, what can you do?",
  }],
  stream: false,
});

console.log(response?.choices);
```


There Really is No Limit



Chat with Agent ⓘ

Message your agent, assign a task via chat.

 Chat →

Agent Skills ⓘ

v1.0

generate-linkedin-post

[▶ Call](#) [⬇ Bulk Work](#)

New Routine

How often and when does your agent's routine kick off?

Repeat

Repeat Every

1

week

Repeat on

S M T **W** T F S

Ends

Never

On 09/05/2025

After 1 occurrence

[Back](#) [Next](#)

Agents Deploy as API to Power your App

Build Backend APIs in Minutes

You can bypass the conversational agent and directly access any skill as an API to integrate with your existing apps. This makes SmythOS the perfect backend builder. It will be the fastest API you've built and deployed in your career.

AI Video Generator ^{1.0.0}

OAS 3.0

Creates a detailed video script from a topic

Servers

OpenAPI Uri : <https://agent.mydomain.com/api-docs/openapi.json>

default

POST `/api/generate_storyboard`
Generate storyboard frames from a script by using a diffusion model to visualize key scenes

POST `/api/generate_video`
Generate a video from the script and storyboard frames using Sora or Veo 2 API

POST `/api/add_rights_metadata`
Add rights tracking information and metadata to the video for proper attribution and management

Build your SaaS backend with SmythOS

Provide the OpenAPI spec to AI Code editor, and watch them integrate it into your front-end.

Building backend logic to power your SaaS has never been this easy.

OpenAPI Compatible

OpenAPI offers a universal, language-agnostic format for describing RESTful APIs, ensuring consistency, faster development, improved collaboration, increased API adoption and better design, validation and documentation. Also known as Swagger, SmythOS offers this out of the box, zero configuration required.

API Security Made Simple

We know that OAuth implementations are not easy, so we made it easy for you. And of course, you can simply add a key secret as well.

Configure Custom Auth

Select an Auth Method

None
Bearer API Key
OAuth OIDC

Step By Step Sample Project

First Cognition Foundation Model

- 👉 Centaur is the first foundation model of human cognition.
- 👉 It outperforms domain-specific cognitive models in all but one experiment, despite working in any setting.
- 👉 It works in entirely new domains.
- 👉 It generates human-like behavior in open-loop simulations.
- 👉 It satisfies nearly all of Newell's criteria for a unified theory of cognition (1990).

nature

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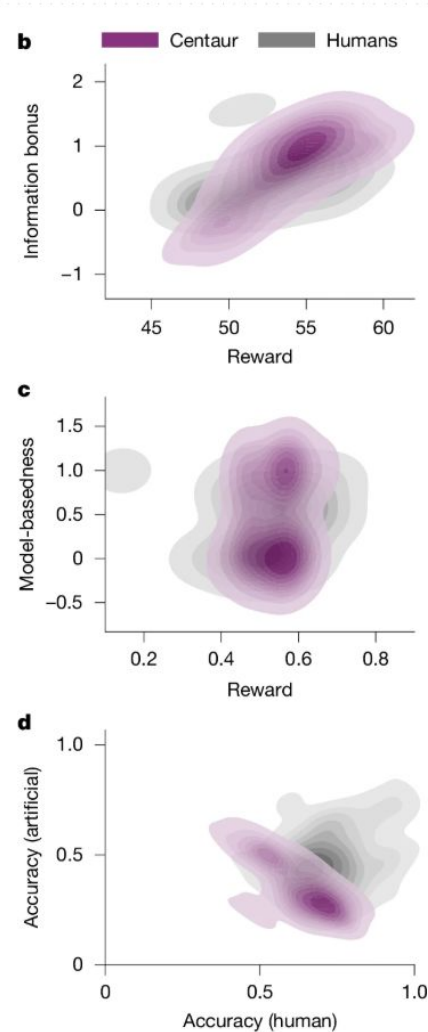
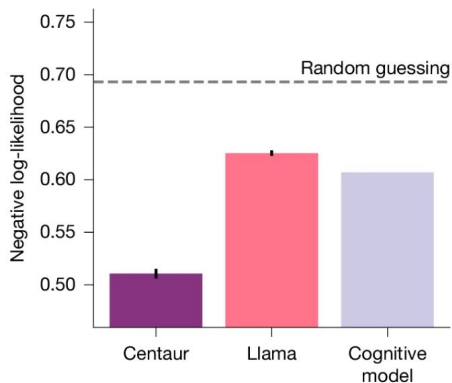
Article | Open access | Published: 02 July 2025

A foundation model to predict and capture human cognition

Marcel Binz, Efi Akata, Matthias Bethge, Franziska Brändle, Fred Callaway, Julian Coda-Forno, Peter Dayan, Can Demircan, Maria K. Eickstein, Noémi Éltető, Thomas L. Griffiths, Susanne Haridi, Akshay K. Jagadish, Li Ji-An, Alexander Kipnis, Sreejan Kumar, Tobias Ludwig, Marvin Mathony, Marcelo Mattar, Alireza Modirshanechi, Surabhi S. Nath, Joshua C. Peterson, Milena Rimus, Evan M. Russek, ... Eric Schulz + Show authors

Nature (2025) | Cite this article

6665 Accesses | 396 Altmetric | Metrics



So ... I built a Pre-Click Simulator ... in < 1 hour

July 4th, 2025



Alexander De Ridder ✓ • You
Serial entrepreneur & ML pioneer since 2008 | AI SaaS founder since 2017 | ...

10h ...

I would love to get the source of this study. Do you have a link?

Like | Reply · 1 reply | 137 impressions

July 5th, 2025



Alaa-eddine KADDOURI ✓ • 1st
VP of Engineering at SmythOS / Software architect / Entrepreneur in IC...

5h ...

[Alexander De Ridder](https://www.nature.com/articles/s41586-025-09215-4) <https://www.nature.com/articles/s41586-025-09215-4>

Like | Reply

7:24 AM

perfect

btw

this centaur paper is insane

predicting human behavior

7:31 AM

ill make a web app

that predicts which ad ppl will click on

8:12 AM

Psychology Analysis Complete
Asset A Wins
@ BOS Conference

Asset A:

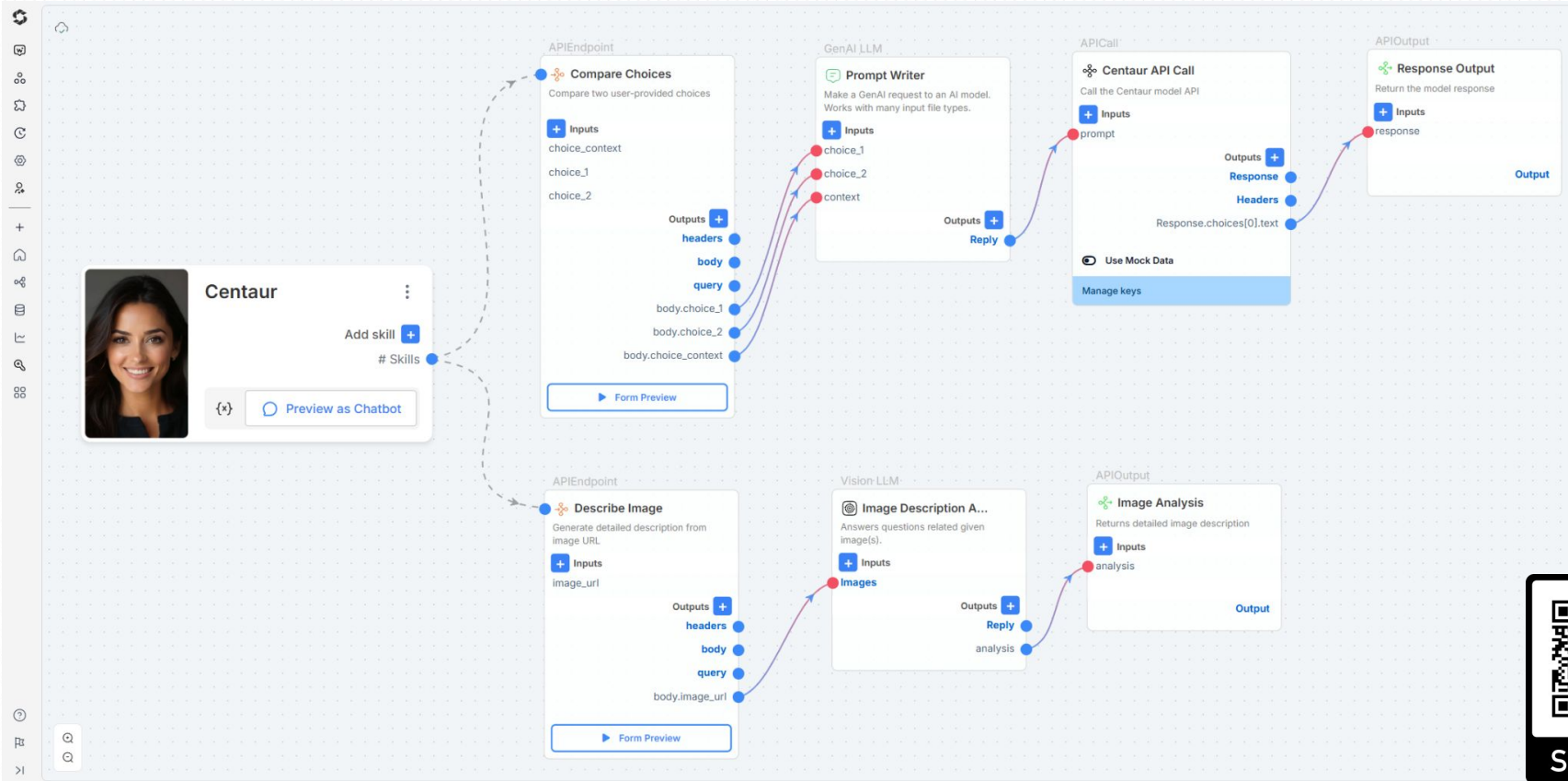
Asset B:

Psychology Analysis
Based on psychological analysis of the content against your target persons, Asset A demonstrates superior engagement potential through better alignment with user motivations, clearer messaging hierarchy, and stronger emotional resonance patterns.

I've built a psychological pre-click simulator, letting marketers vet ad creatives without needing to burn money on impressions. It's not predicting behavior from population-scale data, but modeling cognition and emotion from first principles.

Can you Sketch Your Workflow on Paper?

First, I Made the Agent in SmythOS.com



I found that the model was already hosted on featherless.ai - so I subscribed and had Agent Weaver build the API call for me in SmythOS. This flow is the full Agent with APIs.

Then, I Made the Front-End in Lovable.app

The screenshot shows a Lovable.app editor interface. On the left is a dark sidebar with a design system and project instructions. The main area displays a simulated A/B testing application with two marketing asset input forms and a user persona background section.

ad-psych-insights-arena Invite Publish

Implement every page in a separate folder, and make self contained, all its dependencies should be stored in the same folder. Only common dependencies (common controls like buttons, inputs...etc) should be stored in a common folder.

The project is called A/B testing Simulation

The app needs to let the user copy paste from clipboard any two images or text (either text or image input) to compare two advertisements. It also needs to let the user upload an image instead of copy pasting, or providing a URL to an image.

These are both required inputs.

There is another required input, which is background information about the user persona.

Then the user can click a Psych Analyze button, which is using a human psychology AI model that analyzes which preference a user would take.

The output will choose a winner between the two marketing assets. The AI will pick one result. This needs to be nicely visualized. It can take the AI a moment to decide. We'll add API plumbing in the next step.

Use the following design system for the design:

```
{
  "designSystem": {
    "style": {
      "theme": "light",
      "typography": {
        "fontFamily": "Inter, sans-serif",
        "fontWeight": {
          "regular": 400,
          "medium": 500,
          "semibold": 600
        }
      },
      "fontSize": {
        "sm": "12px",
        "base": "14px",
        "md": "16px",
        "lg": "18px",
        "xl": "24px"
      },
      "lineHeight": {
        "base": "1.5",
        "heading": "1.25"
      }
    }
  }
}
```

Ask Lovable... Edit Chat

A/B Testing Simulation

Compare two marketing assets using advanced psychology AI to predict user preferences and engagement. Made with [SmythOS](#) ❤️ [Lovable](#) and [Centaur](#) in under 1 hour.

Marketing Asset A

Marketing Asset B

👤 User Persona Background

Provide detailed information about your target audience to help our psychology AI understand their preferences, motivations, and decision-making patterns.

Example: Tech-savvy millennials aged 25-35, interested in sustainable living, higher education, disposable income \$50k+, active on social media, value authenticity and social responsibility, prefer mobile-first experiences...

Include demographics, interests, behaviors, pain points, and goals 0/2000

I asked lovable to create this app. In the first step, it just makes the user interface. I also provided it with a design system.

Finally, I asked Lovable to use the SmythOS APIs

The image shows a web browser window with a chat interface on the left and a web application on the right. The chat window, titled "ad-psych-insights-arena", contains text explaining the need for text input for image analysis and provides a JSON API definition for a "Centaur" agent. The main application, titled "A/B Testing Simulation", allows users to compare two marketing assets (A and B) using a psychology AI. It includes input fields for image URLs and a "Psych Analyze" button. Below the asset comparison is a "User Persona Background" section with a text area for input and a "0/2000" character count.

```
{
  "openapi": "3.0.1",
  "info": {
    "title": "Centaur",
    "description": "A dynamic agent that leverages API calls to compare choices, analyze images, and generate detailed descriptions, all enhanced by the Centaur model for optimal responses.",
    "version": "1.0.0"
  },
  "servers": [
    {
      "url": "https://*****agent.a.smyth.ai"
    }
  ],
  "paths": {
    "/api/compare_choices": {
      "post": {
        "summary": "Compare two user-provided choices using the Centaur model.",
        "operationId": "compare_choices",
        "x-openapi-leConsequential": false,
        "requestBody": {
          "required": true,
          "content": {
            "application/json": {
              "schema": {
                "type": "object",
                "properties": {
                  "choice_context": {
                    "type": "string",
                    "description": "Describe the persona or audience data for the experiment."
                  },
                  "choice_1": {

```

Now you'll see that before you can psych analyze, you need to first convert images to text, because it requires text input, not images.

I have an api that can turn 1 image into text at a time, so you might have to call it more than once.

I also have an api that can provide the analysis on which result is picked (1 or 2)

A/B Testing Simulation

Compare two marketing assets using advanced psychology AI to predict user preferences and engagement. Made with [SmythOS](#) ❤️ [Lovable](#) and [Centaur](#) in under 1 hour.

Marketing Asset A

Paste from Clipboard

Image Text

Upload Image

Enter image URL...



Marketing Asset B

Paste from Clipboard

Image Text

Upload Image

Enter image URL...



User Persona Background

Provide detailed information about your target audience to help our psychology AI understand their preferences, motivations, and decision-making patterns.

Example: Tech-savvy millennials aged 25-35, interested in sustainable living, higher education, disposable income \$50k+, active on social media, value authenticity and social responsibility, prefer mobile-first experiences...

Include demographics, interests, behaviors, pain points, and goals

0/2000

Psych Analyze

Ask Lovable...

Edit

Chat

Then I gave the API SmythOS provided me to Lovable, and asked it to integrate it in the app.

Video

The screenshot displays the SmythOS AI workflow builder interface. At the top, the browser address bar shows `app.smythos.com`. The interface includes a sidebar with navigation icons, a top navigation bar with buttons for `Debug Off`, `Test`, `Deploy`, and `Share`, and a central workspace with a grid background.

On the left, a chatbot profile for **Centaur** is shown, featuring a profile picture of a woman and a `Preview as Chatbot` button. The chatbot has two skills:

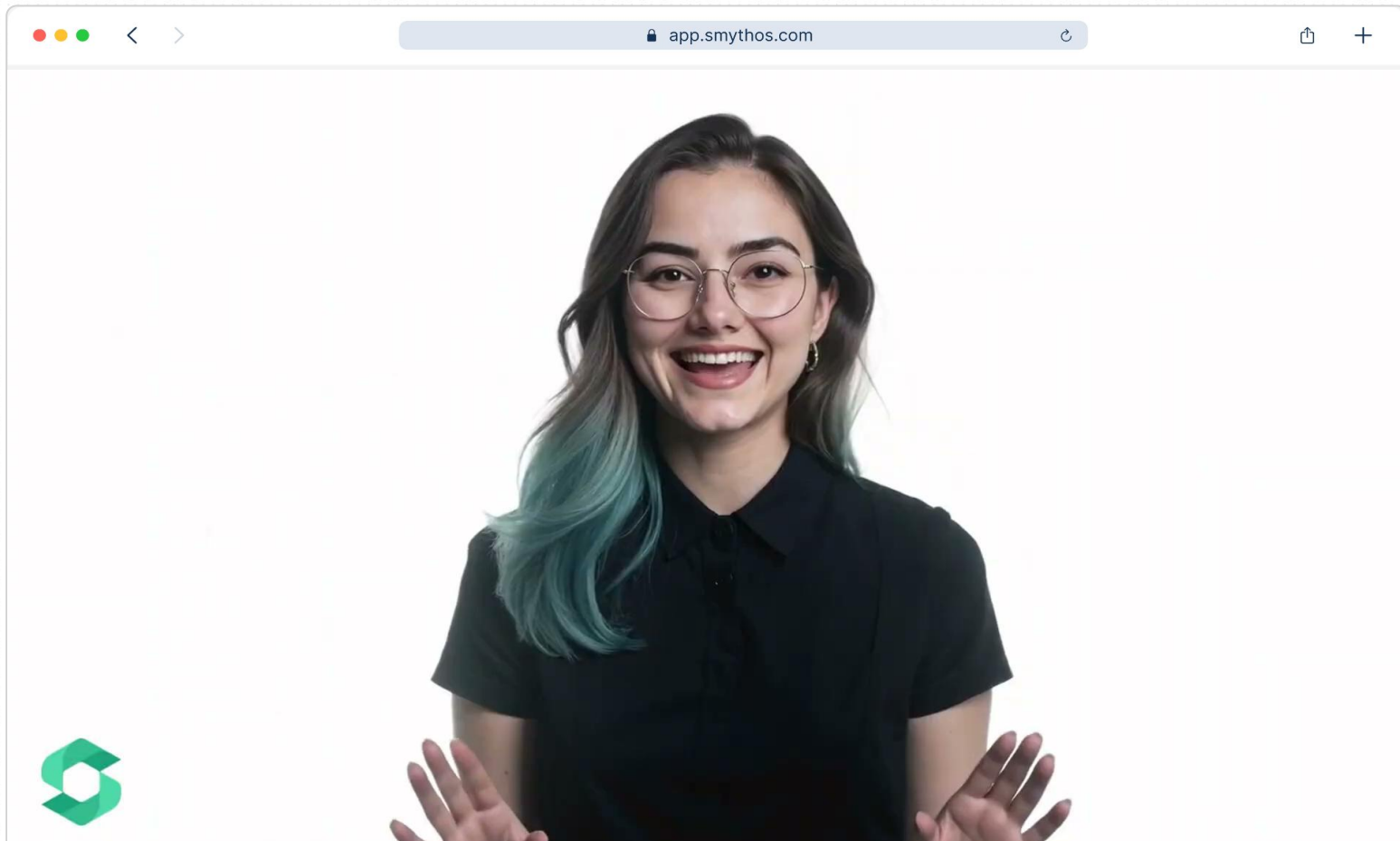
- Compare Choices** (API Endpoint):
 - Inputs: `choice_context`, `choice_1`, `choice_2`
 - Outputs: `headers`, `body`, `query`, `body.choice_1`, `body.choice_2`, `body.choice_context`
 - Form Preview button
- Describe Image** (API Endpoint):
 - Inputs: `image_url`
 - Outputs: `headers`, `body`, `query`, `body.image_url`

The workflow logic is as follows:

- The **Compare Choices** skill connects to a **GenAI LLM** `Prompt Writer` node, which outputs `Reply`.
- The **Describe Image** skill connects to a **Vision LLM** `Image Description A...` node, which outputs `Reply`.
- Both `Reply` outputs connect to an **APICall** `Centaur API Call` node, which outputs `Response`.
- The `Response` output connects to an **APIOutput** `Response Output` node, which outputs `response`.
- Additionally, the `Response` output connects to an **APIOutput** `Image Analysis` node, which outputs `analysis`.

Starting Is Easy

Building Agents is Easy with Weaver



Smyth Forged

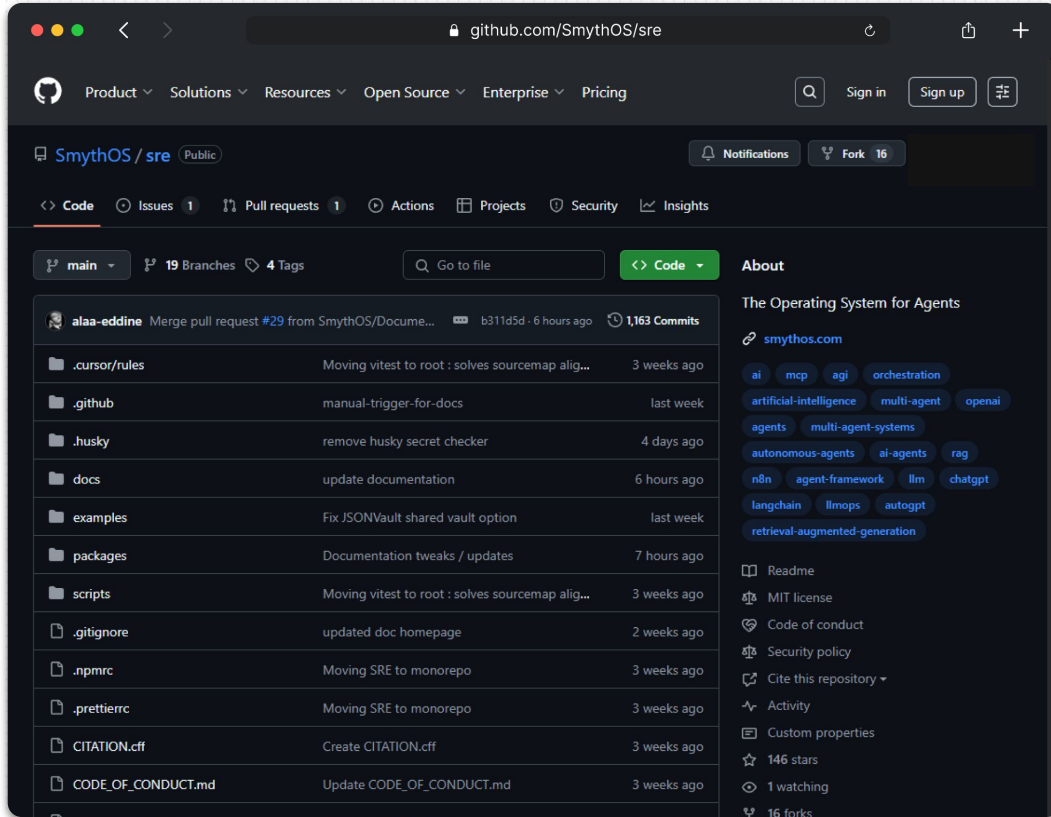


<https://forged.smythos.com/>

Ride The Llama Skip The Drama



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The screenshot shows the GitHub repository page for `SmythOS/sre`. The repository is public and has 19 branches and 4 tags. The main branch is selected. The repository description is "The Operating System for Agents". The repository is licensed under MIT. The repository has 146 stars, 1 watching, and 16 forks. The repository is categorized under AI, MCP, AGI, Orchestration, Artificial Intelligence, Multi-Agent, OpenAI, Agents, Multi-Agent Systems, Autonomous Agents, AI Agents, RAG, n8n, Agent Framework, LLM, ChatGPT, LangChain, LLMOps, AutoGPT, and Retrieval-Augmented Generation. The repository is also categorized under Readme, MIT license, Code of conduct, Security policy, Cite this repository, Activity, Custom properties, 146 stars, 1 watching, and 16 forks.

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Repository: SmythOS / sre (Public)

Actions: Notifications, Fork 16

Code, Issues 1, Pull requests 1, Actions, Projects, Security, Insights

main 19 Branches 4 Tags

Go to file Code About

The Operating System for Agents

smythos.com

ai mcp agi orchestration
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agents multi-agent-systems
autonomous-agents ai-agents rag
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retrieval-augmented-generation

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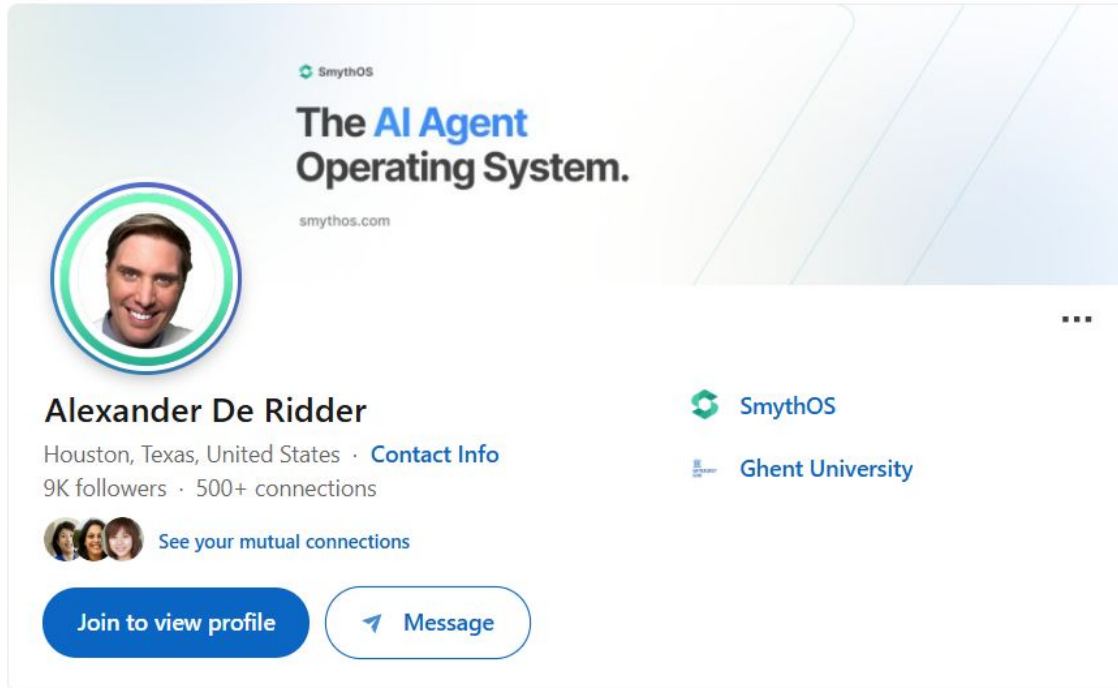
File	Description	Last Commit
alaa-eddine Merge pull request #29 from SmythOS/Docume...		b311d5d - 6 hours ago 1,163 Commits
..cursor/rules	Moving vitest to root: solves sourcemap alig...	3 weeks ago
.github	manual-trigger-for-docs	last week
.husky	remove husky secret checker	4 days ago
docs	update documentation	6 hours ago
examples	Fix JSONVault shared vault option	last week
packages	Documentation tweaks / updates	7 hours ago
scripts	Moving vitest to root: solves sourcemap alig...	3 weeks ago
.githignore	updated doc homepage	2 weeks ago
.npmrc	Moving SRE to monorepo	3 weeks ago
.prettierrc	Moving SRE to monorepo	3 weeks ago
CITATION.cff	Create CITATION.cff	3 weeks ago
CODE_OF_CONDUCT.md	Update CODE_OF_CONDUCT.md	3 weeks ago



github.com/SmythOS/sre

Say Hello, and Follow

Speaking Events, Podcasts, Introductions, Collaborations?



A screenshot of a LinkedIn profile for Alexander De Ridder. The profile header features the SmythOS logo and the text "The AI Agent Operating System." with the website "smythos.com". The profile picture shows a man with a beard and glasses. Below the name, it lists "Houston, Texas, United States", "Contact Info", "9K followers", and "500+ connections". There are buttons for "Join to view profile" and "Message". The background of the profile banner includes the SmythOS logo and "Ghent University".



linkedin.com/in/adridder

Thank You.

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Alexander De Ridder

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