



FlowFacts AI

Deep research agent

<⚡> SuperAGI

 LangChain



NN new native group

 NEXTGRID

Autonomous Agents Hackathon

Problem Statement

How can we use AGI to fast-track research discovery, validate data, and enhance trust for researchers and analysts?

The FlowFacts Deep Research Agent aims to solve the inefficiencies in traditional research methods by automating data validation and significantly reducing the time required for exploratory research.



Meet Sarah, a Researcher

Sarah has an epiphany one day while performing research that challenges the scientific status quo, and wants to confirm her theory is consistent and plausible. She does research, writes extensive notes, but then has trouble evaluating if everything is consistent. She struggles to find someone willing to put in the time to help her.

Pain Point

Dr. Sarah spends weeks doing exploratory research only to still be uncertain if she is correct

Solution

An automated agent does the research automatically, writes notes, organizes them, and uses its large context to find conflicts or gaps in research

Outcome

Sarah gets an answer she is confident with, shares the well refined research with peers, writes a published peer review article, and wins a nobel prize

The Hackathon Project

We created a SuperAGI toolkit for doing deep research. The toolkit is leveraged by SuperAGI agents to research a user's query. The Deep Research Toolkit currently consists of the following tools:

The Deep Research Tool

Starts the deep research process and instructs the AI on next steps. The AI can always consult the tool on what to do next

The Investigator Tool

Dives into a topic, takes notes, determines whether there's new topics worth investigating

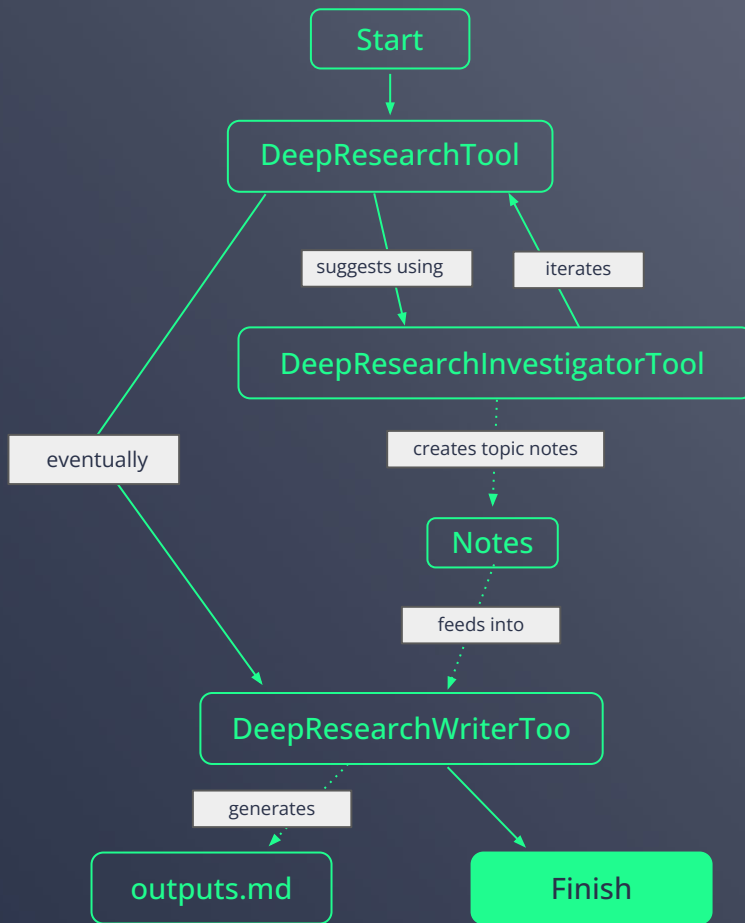
The Writer Tool

Aggregates the notes and thoughts, summarizes findings, establishes a conclusion, and writes out an article in markdown



PRODUCT DEMO

App flow



Future Vision

The hackathon proof-of-concept isn't doing everything it could. While it is running on SuperAGI, it isn't make the most use of the platform. Here are just some of the additional features it could have in the future.

Competing Agents

The original vision was to have two competing agents - one who has the goal of supporting the user's theory, and another who has the goal of disproving it

Specialized Databases

Currently the prototype does Google searches. The AGI agent could have access to scholarly resources and user provided data.

Integration Into Other Workflows

The prototype is intended for a narrow path and use case, but over time could provide capabilities to augment other workflows

Future Vision

AGI Judgement

The AGI has various resources and uses judgement to determine whether it is satisfied with the research so far

Images

Image generation to grab the user's attention and to illustrate concepts

Mathematical Model Evaluation

The AI could find mathematical models and find opportunities to plug in data to validate claims.

Other Applications

The core use case for our prototype is scientific research, but there are other applications. This could be applied to almost any industry.

Medical Research

Connected to medical journals this could aid doctors with diagnosis, help justify procedures to insurance, and aid with medicine research

Business Research

Discover existing business models and why they may have failed

Changing minds

Replace "I did my own research" with "I asked the AI to provide hard evidence where my thinking went wrong"

Market

Global
Spent
in R&D
in 2022



\$2.5 T

% from GDP into R&D
In 2021' per country



Israel

5.55%



Korea

4.93%



Sweden

3.35%



United States

3.45%

Team



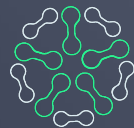
James Hutchison
Lead Software Engineer



Ibrahim Laeeq
Software Engineer



Stan Slavev
Marketing & Creative



Thank you

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