

<image/nation>
Future-proof Tech Skills

Specially designed for



HKU
BUSINESS
SCHOOL
港大經管學院

Masters
Programmes

2026/2027

Agentic Workflow

Automating the Associate's Day

by

Sunny NG

sunny.ng@imagenation.com.hk

Setup Check List

- Make sure you have a Gmail account. If you don't, create one and make sure you can log in to the following services
 - <https://gmail.com>
 - <https://gemini.google.com>
 - Access Gemini Enterprise (Optional)
- Use your HKU Portal ID and password to sign in to personal
 - <http://copilot.microsoft.com> (Personal)
 - <https://m365.cloud.microsoft/> (Enterprise)
 - <https://copilotstudio.microsoft.com> (Enterprise)

Sunny NG

Master of Fine Art City University of Hong Kong, **Master of Science** University of Hong Kong, **Bachelor of Science** University of Hertfordshire (UK)

training.imagenation.com.hk

www.linkedin.com/in/ngsunny/

<https://github.com/ngsanluk>

Founder & Master Trainer Image Nation 隨想國度

26-Year IT & New Media Experience

AI, Cloud, Blockchain, Web, Mobile, Database & IoT Applications Development

19-Year University Teaching & Tech Training

HKU / HKUSPACE / EdUHK / CityUHK

Certifications & Professional Qualifications

Microsoft Certified Azure Developer, AI Engineer & Github Copilot

AWS Certified Solution Architect, Developer, Data Engineer, Machine Learning Engineer & AI Practitioner

Alibaba Cloud Certified Professional in Cloud Computing

Accredited Educator for AWS Academy

Accredited Educator for Microsoft Learn for Educator (MSLE)

Accredited Educator for Oracle Academy

Accredited Educator for Cisco Networking Academy



In this workshop (3 hours)

- Understand GenAI and Effective Prompting Techniques
- Chat vs. Agency
- Understand Agentic Workflow & AI Agent
- Agent / Agentic Tools Landscape
- Deconstructing the Associate Day
- The Next-gen Associate Value Proposition
- Level Up Your AI Toolkit (Hands-on Time)
 - Building Your Custom Chatbots, AI Agents & Apps for Internship and Future Fulltime Job Use

Key Takeaways

- **Technical Fluency:** Ability to build and troubleshoot multi-step agent pipelines using modern framework architectures.
- **Risk Management:** Practical implementation of verification loops to eliminate hallucinations in numerical and qualitative outputs.
- **Career Readiness:** Custom AI tools, pre-built workflow templates directly applicable to summer internships and full-time associate roles.

To download the slides

tinyurl.com/hkin-dl



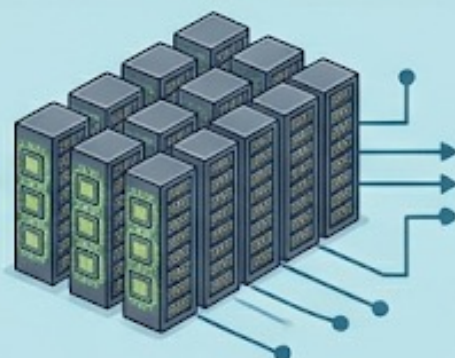
Understanding GenAI

LLM TRAINING vs. INFERRNCING: THE TWO PHASES OF AI

STEP 1: LLM TRAINING (Build the Model)



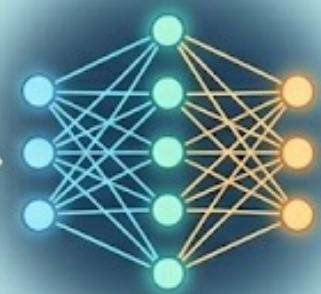
A MASSIVE TEXT CORPUS



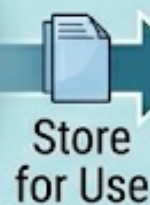
COMPUTE CLUSTER



LEARNING ALGORITHMS



TRAINED MODEL (The "Brain")



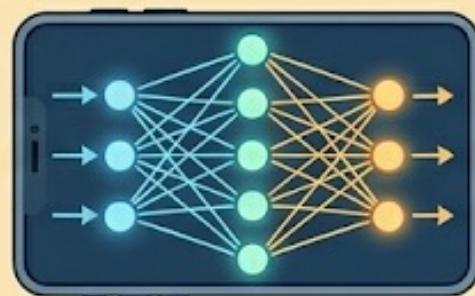
Process huge data, vast computer power, high cost, lengthy time (months)



STEP 2: LLM INFERRNCING (Using the Model)



"Write a poem about a cat"



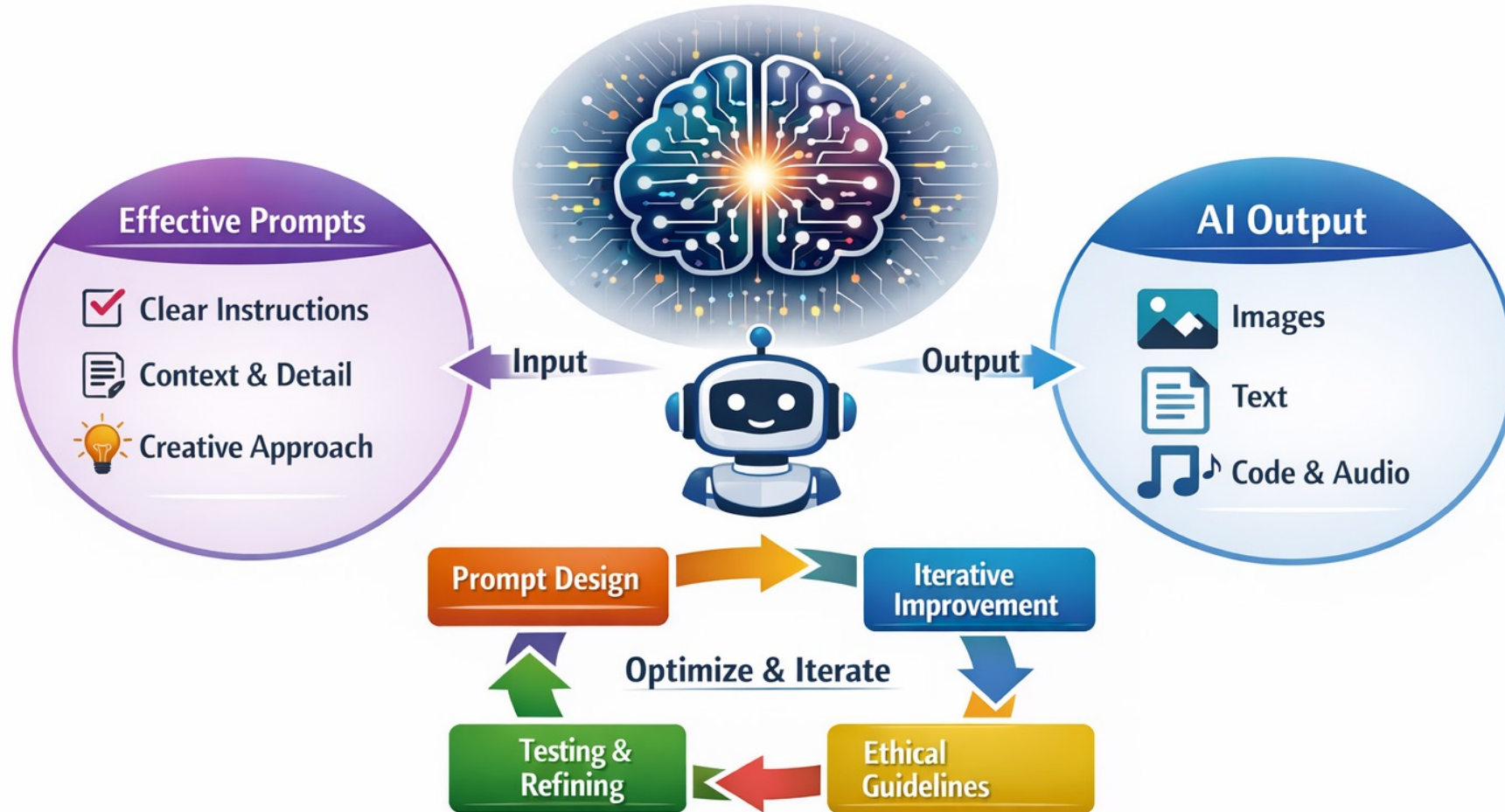
The Brain



Output Answer

Input prompt, run model, low power, near-instant results

Gen AI Prompt Engineering

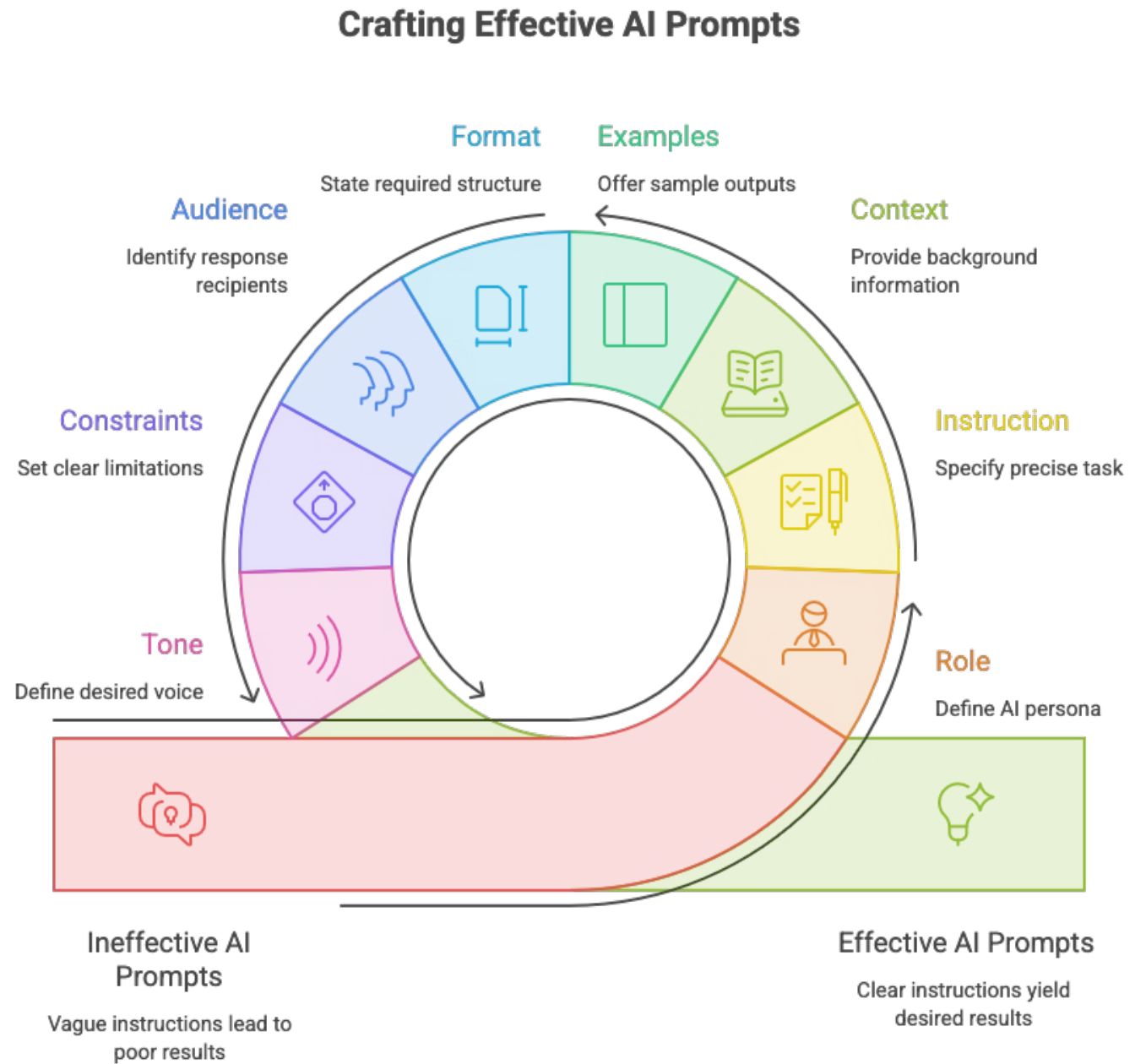


RICE FACT

Prompt Framework

RICE FACT

Writing Effective Prompts



RICE FACT Example

Instruction only | Prompt Quality: ★ ★ ★ ★ ★

Role

Instruction **Explain what GenAI is.**

Context

Example

Format

Action

Constraint

Tone

RICE FACT Example

Role + Instruction | Prompt Quality: ★ ★ ★ ★ ★

Role	You are a primary school teacher.
Instruction	Explain what GenAI is.
Context	
Example	
Format	
Action	
Constraint	
Tone	

RICE FACT Example

Role + Instruction + Context | Prompt Quality : ★ ★ ★ ★ ★

Role	You are a primary school teacher.
Instruction	Explain what GenAI is.
Context	The target audience are junior non-ICT students.
Example	
Format	
Action	
Constraint	
Tone	

RICE FACT Example

Instruction + Format | Prompt Quality : ★ ★ ★ ★ ★

Role

Instruction **Explain what GenAI is.**

Context

Example

Format **Use one sentence.**

Action

Constraint

Tone

RICE FACT Example

Instruction + Format | Prompt Quality: ★ ★ ★ ★ ★

Role

Instruction **Explain what GenAI is.**

Context

Example

Format **Use three bullet points.**

Action

Constraint

Tone

RICE FACT Example

Instruction+Format+Constraint | Prompt Quality: ★ ★ ★ ★ ★

Role

Instruction **Explain what GenAI is.**

Context

Example

Format **Use three bullet points.**

Action

Constraint **Each bullet points not more than 15 words.**

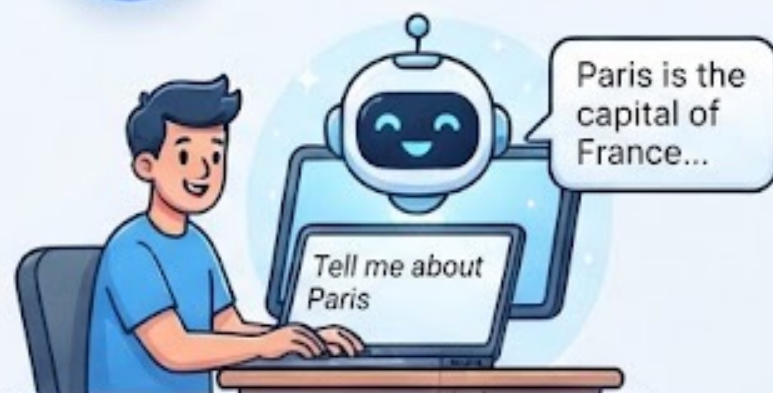
Tone

Chat **vs.** Agency

COMPARISON: AI CHAT *vs.* AI AGENCY



AI CHAT (CONVERSATION)



- **FOCUS:** Interactive conversation and information retrieval.
- **AUTONOMY:** Continuous user direction required for every step.
- **OUTPUT:** Text-based responses and summaries.



AI AGENCY (ACTION)



- **FOCUS:** Independent task execution and workflow completion.
- **AUTONOMY:** Manages multi-step processes autonomously after initial prompt.
- **OUTPUT:** Actions, integrations, and completed tasks.

THE DIFFERENCE

Chat vs. Agency

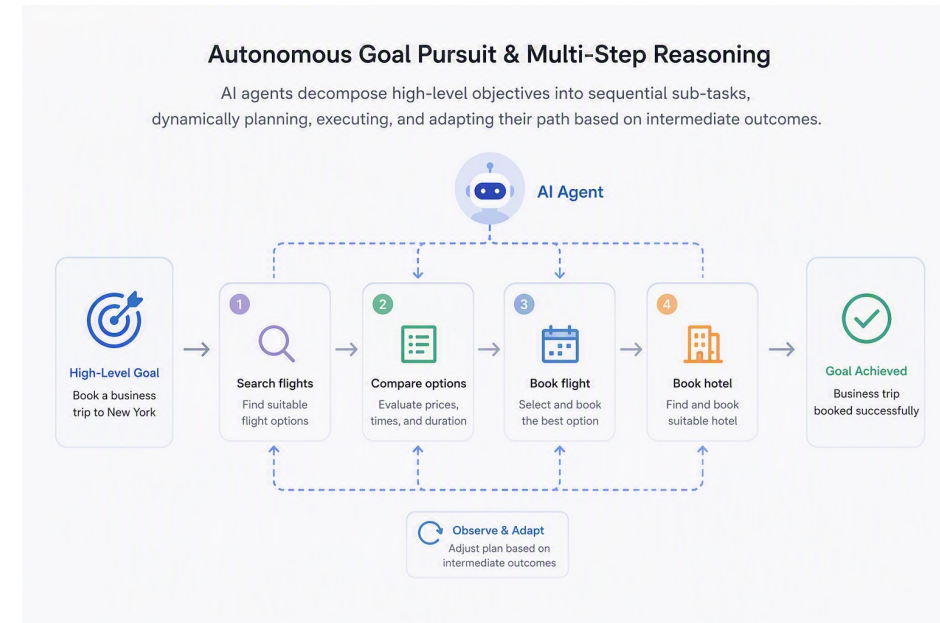
- **Primary Focus:** AI chats focus on interactive conversation, whereas AI agents focus on task execution.
- **Autonomy Level:** Chats require continuous user direction, while agents *independently* manage multi-step workflows.
- **Tool Integration:** Chats primarily process text, while agents actively utilize external software and applications.

Understanding AI Agent

Understanding AI Agent 1/3

■ Autonomous Goal Pursuit & Multi-Step Reasoning:

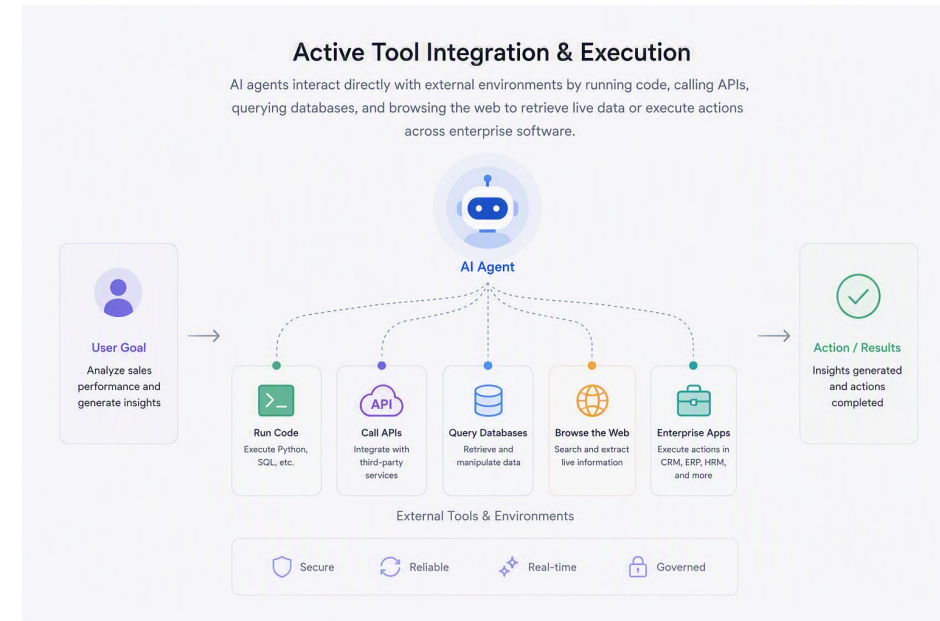
- Unlike single-turn chatbots that respond only to isolated prompts, AI agents decompose high-level objectives into sequential sub-tasks, dynamically planning, executing, and adapting their path based on intermediate outcomes.



Understanding AI Agent 2/3

■ Active Tool Integration & Execution:

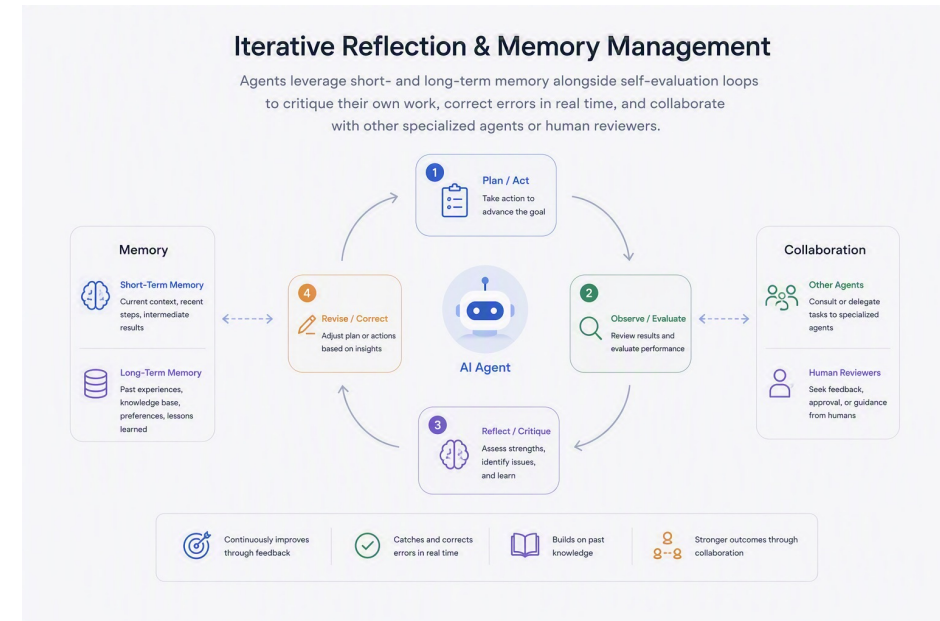
- They interact directly with external environments by running code, calling APIs, querying databases, and browsing the web to retrieve live data or execute actions across enterprise software.



Understanding AI Agent 3/3

■ Iterative Reflection & Memory Management:

- Agents leverage short- and long-term memory alongside self-evaluation loops to critique their own work, correct errors in real time, and collaborate with other specialized agents or human reviewers.

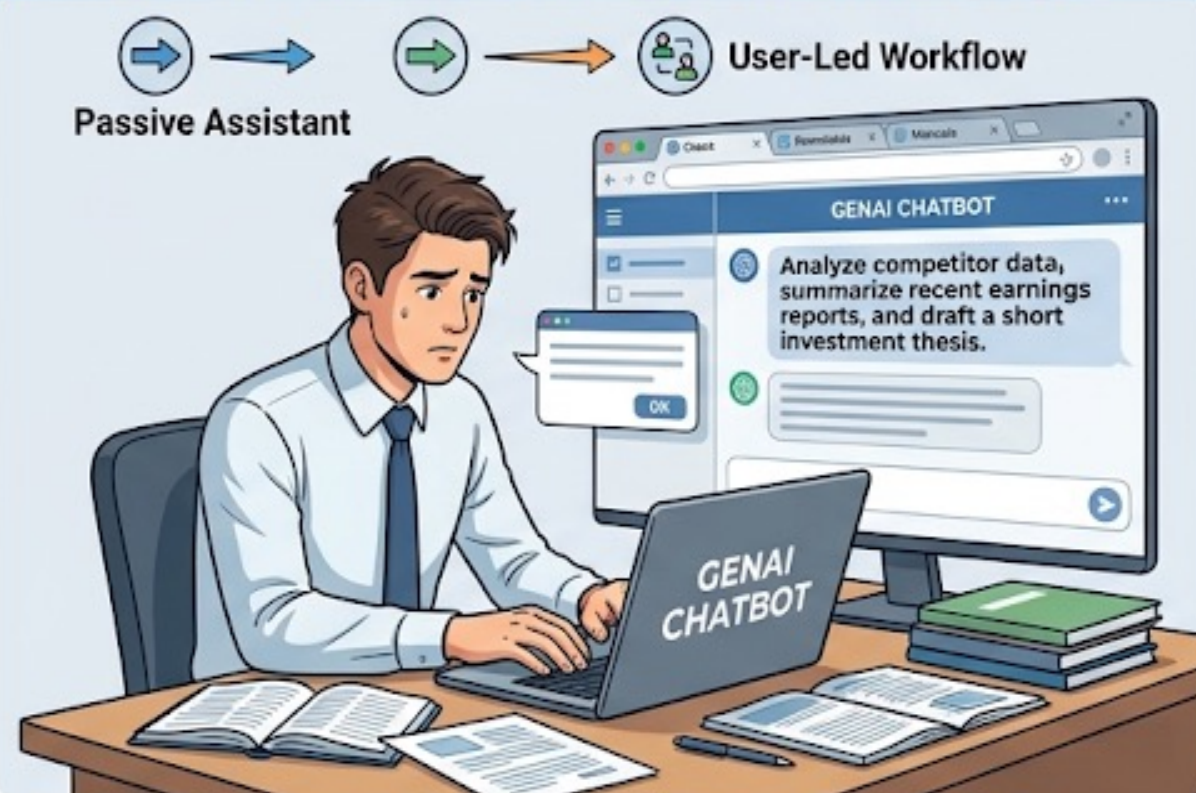


Agentic Shift

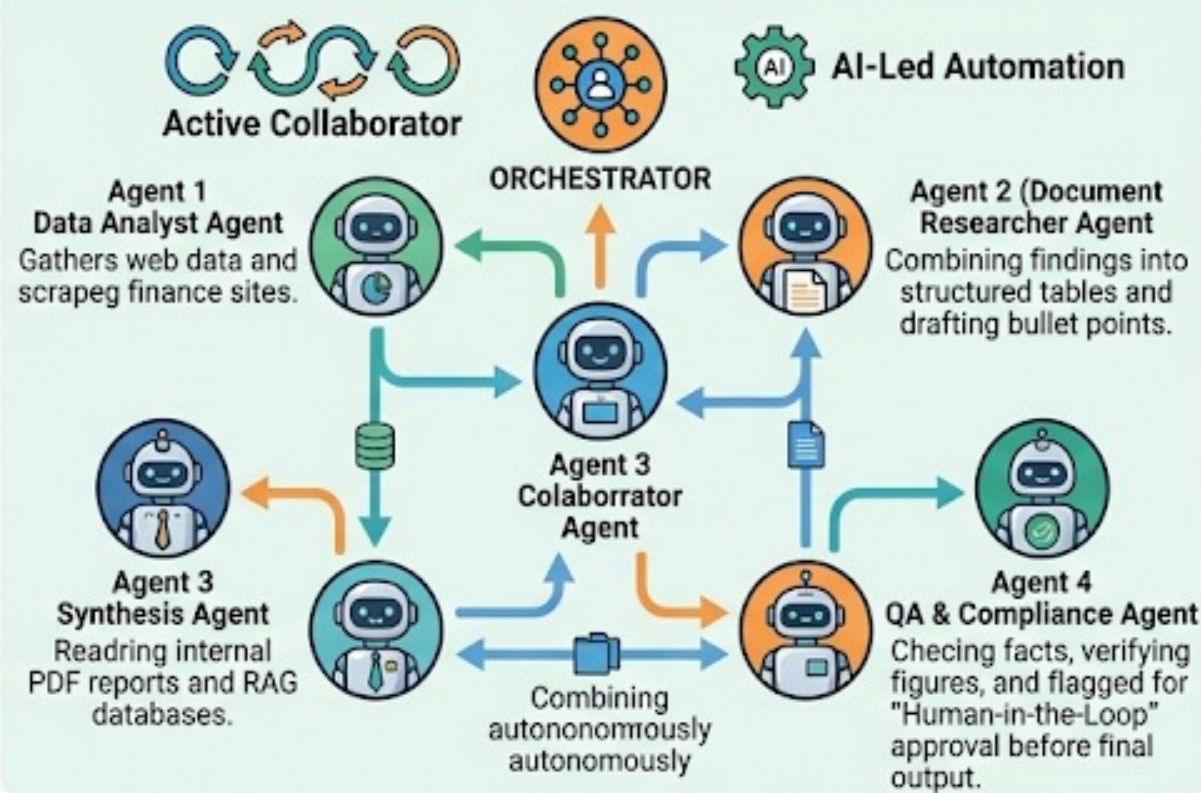
Moving on to ReAct, Planning & Reflection

EVOLUTION OF THE ASSOCIATE'S DAY: PROMPTING vs. AGENTIC SHIFT

TRADITIONAL: SINGLE-TURN PROMPTING



NEW: AGENTIC WORKFLOWS



BENEFITS OF AGENTIC SHIFT



BOOSTED PRODUCTIVITY
Focus on High-Value Strategy, Not Repetitive Tasks.



IMPROVED ACCURACY
Reduced Human Error & Automated Verification (QA).



SCALABLE WORKFLOWS
Handle Complex, Multi-Step Projects Efficiently.



CAREER ACCELERATION
Develop Agentic Reasoning & Strategic AI Management Skills.

Tools Landscape

Popular Agent/Agentic Tools

- Gemini Chat & Gemini Spark (Pro Account Only)
- Gemini Enterprise
- Microsoft Copilot (Personal)
- M365 Copilot (Enterprise)
- Microsoft Copilot Studio (Enterprise)
- N8N
- Zapier
- Make.com
- Dify

Reminder #1

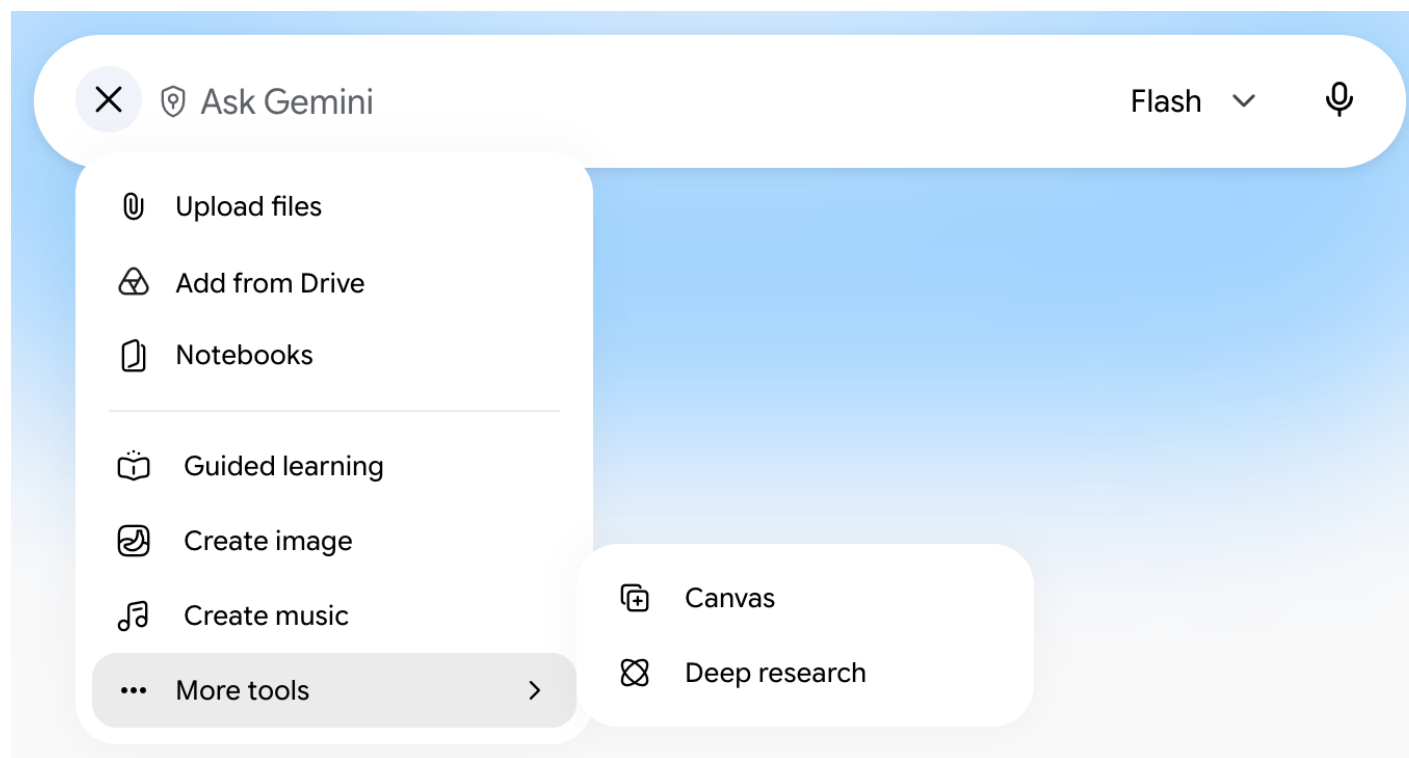
AI products evolve rapidly.
Features and UI change very often.

Reminder #2

AI is NOT always right.
AI makes things up – hallucination.
Use multiple tools for validating.

Google Gemini

<https://gemini.google.com>



Google Gemini Ecosystem

Focused on Deep Synthesis & Workspace Native AI

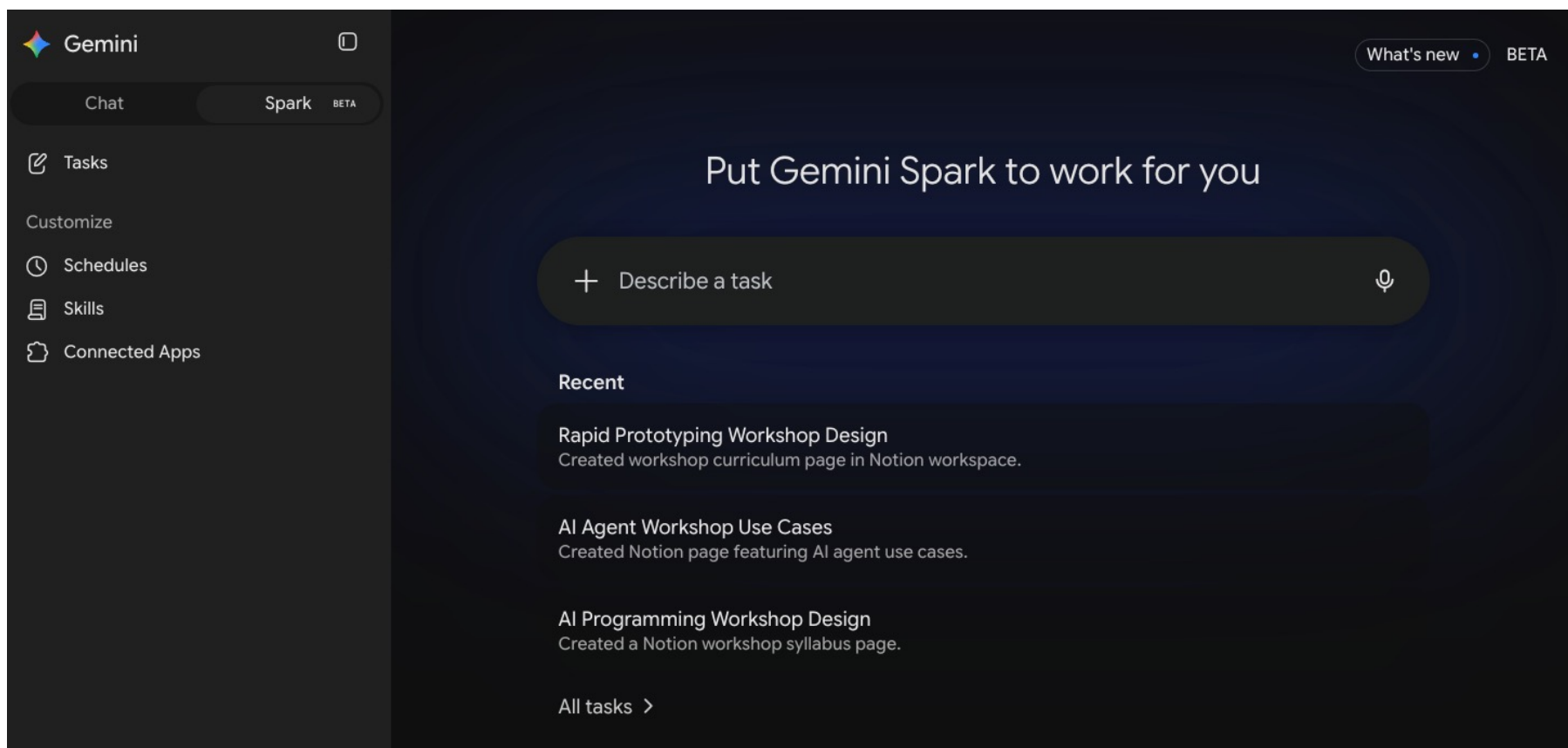
- **Custom Gems:** Tailored mini-agents configured with systemic role instructions and knowledge grounding.
- **Gemini Deep Research:** Multi-step web research agent capable of synthesizing complex industry reports.
- **Gemini Notebook** (previously NotebookLM): Context-grounded analytical engine for strict non-hallucinatory document verification.
- **Workspace Integrations:** Direct execution within Google Docs, Sheets, and Slides.

Gemin Spark

only for **paid** users

Gemini Spark is Google's personal AI agent designed to automate complex workflows and manage scheduled tasks across connected apps and services.

Gemin Spark only for **paid** users



Gemini Enterprise

- Securely access advanced Gemini models privately.
- Securely ground responses in sensitive internal data context for precision answers.
- Guarantee strict data isolation and robust enterprise-grade privacy protection.

Gemini Enterprise

 Gemini Enterprise 

 New chat

 Search

 Library

 Agents >

 Gemini Notebook 

 Deep Research 

 New agent

Recent

AI workshop for kindergarten teachers

VBA coding tools for data analysts

Gemini Enterprise email

AI agents and their goals

Claude skill file binary

OneDrive Word documents

Access workspace file

 Ng San Luk Sunny  

Let's get some work done!

Auto  

 Start my day

Notebooks [See more](#)

Gemini Notebook

 Gemini Enterprise

New chat

Search

Library

Agents

Gemini Notebook

Deep Research

New agent

Recent

AI workshop for kindergarten teachers

VBA coding tools for data analysts

Gemini Enterprise email

AI agents and their goals

Claude skill file binary

OneDrive Word documents

Access workspace file

Settings

ENTERPRISE

Welcome to Gemini Notebook

Create your first notebook

Gemini Notebook is an AI-powered research and writing assistant that works best with the sources you upload



Gain new understandings about any document



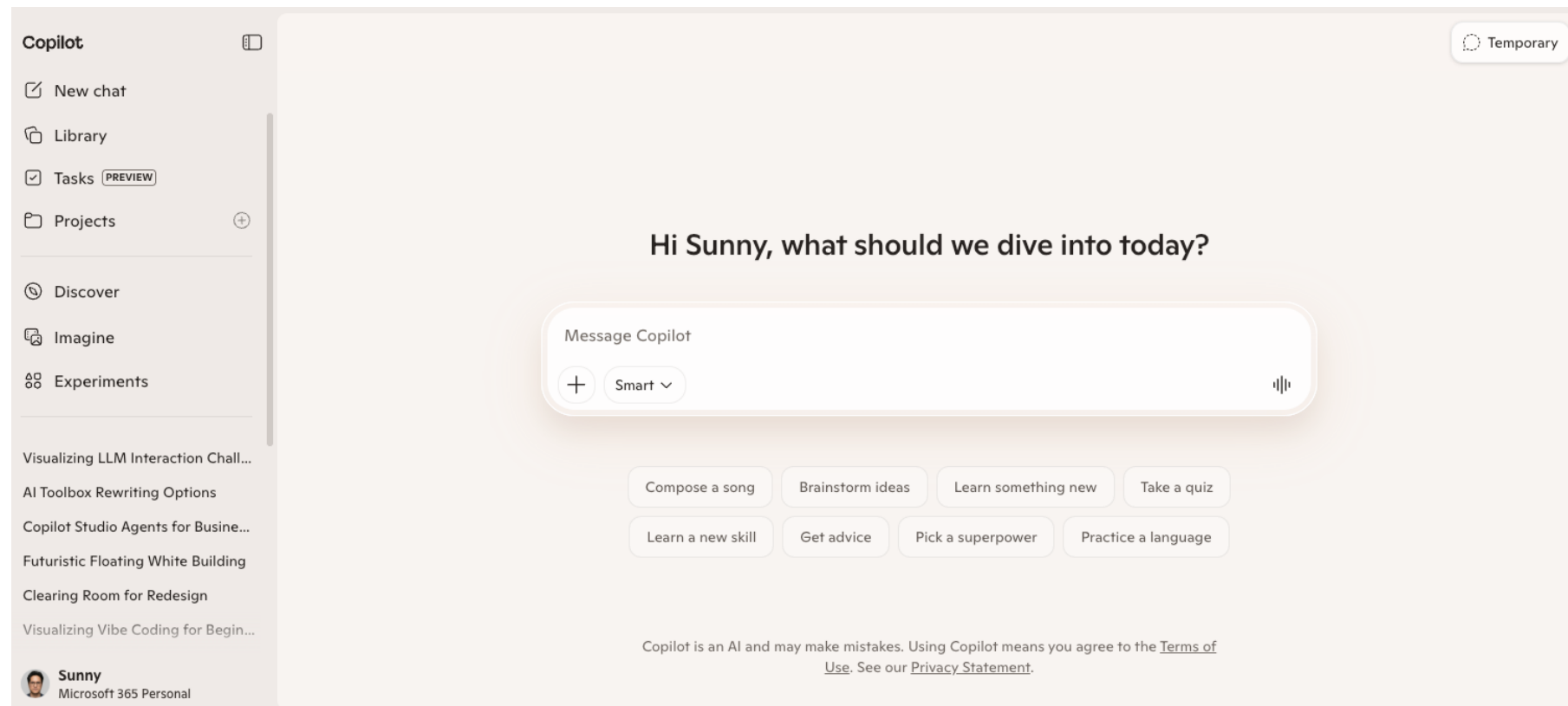
A chatbot grounded in your sources



Share your insights

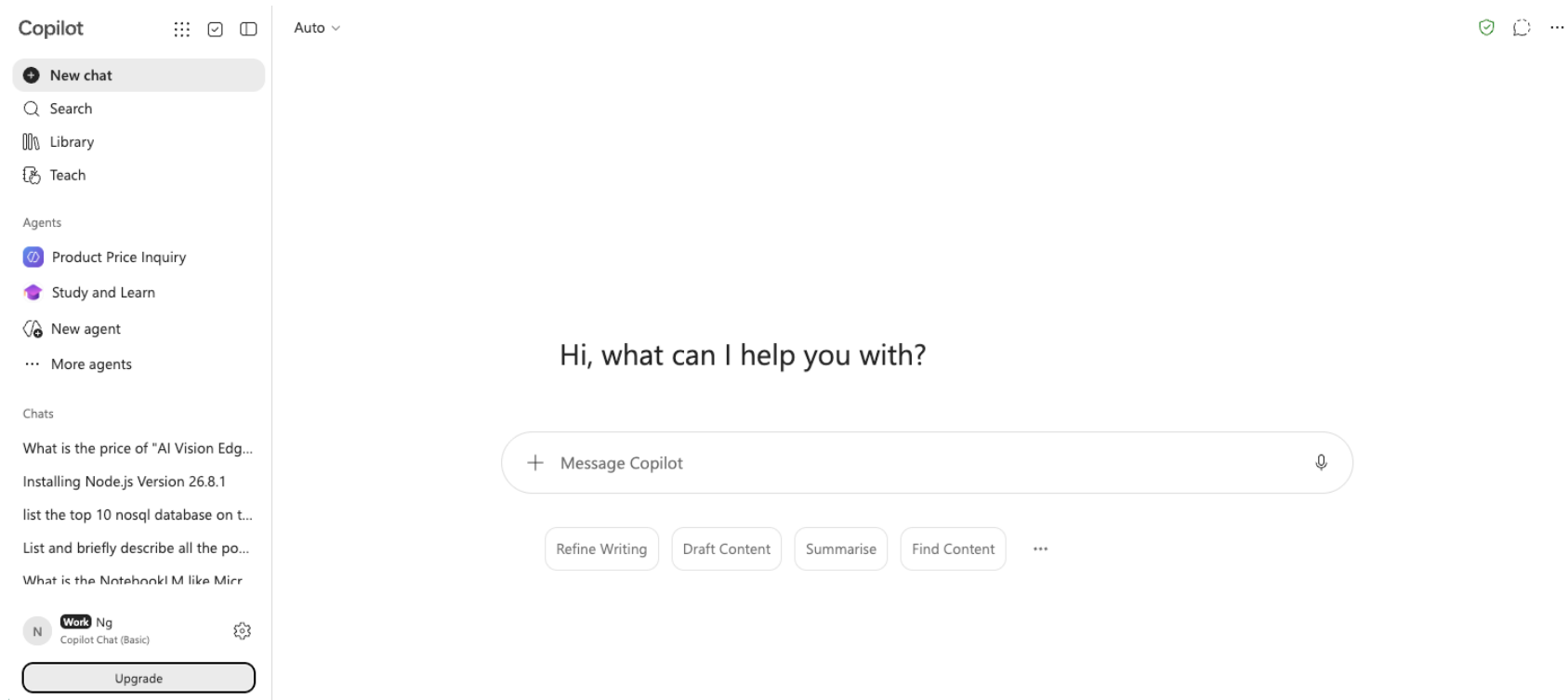
Microsoft Copilot (Personal)

<https://copilot.microsoft.com/>



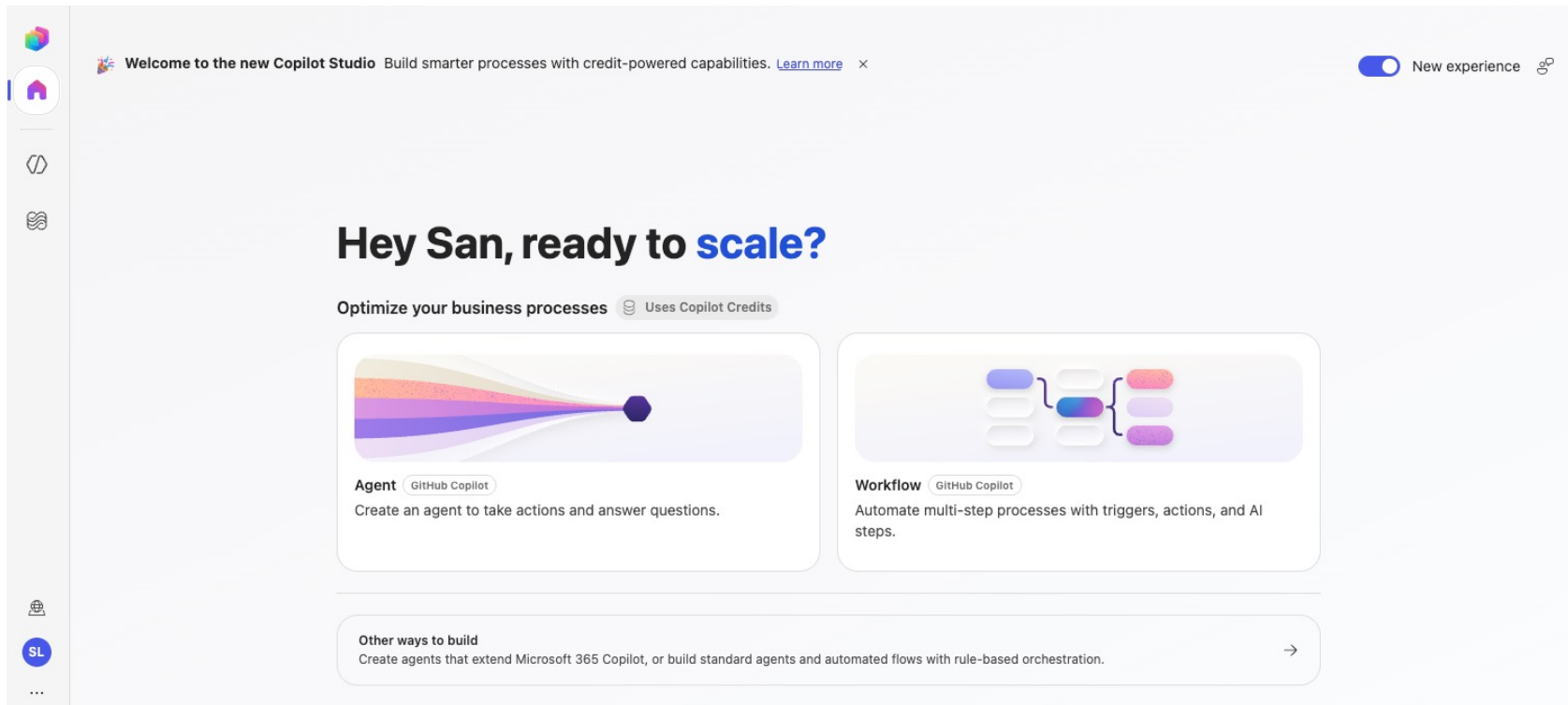
Microsoft M365 Copilot (Enterprise)

<https://m365.cloud.microsoft/chat>



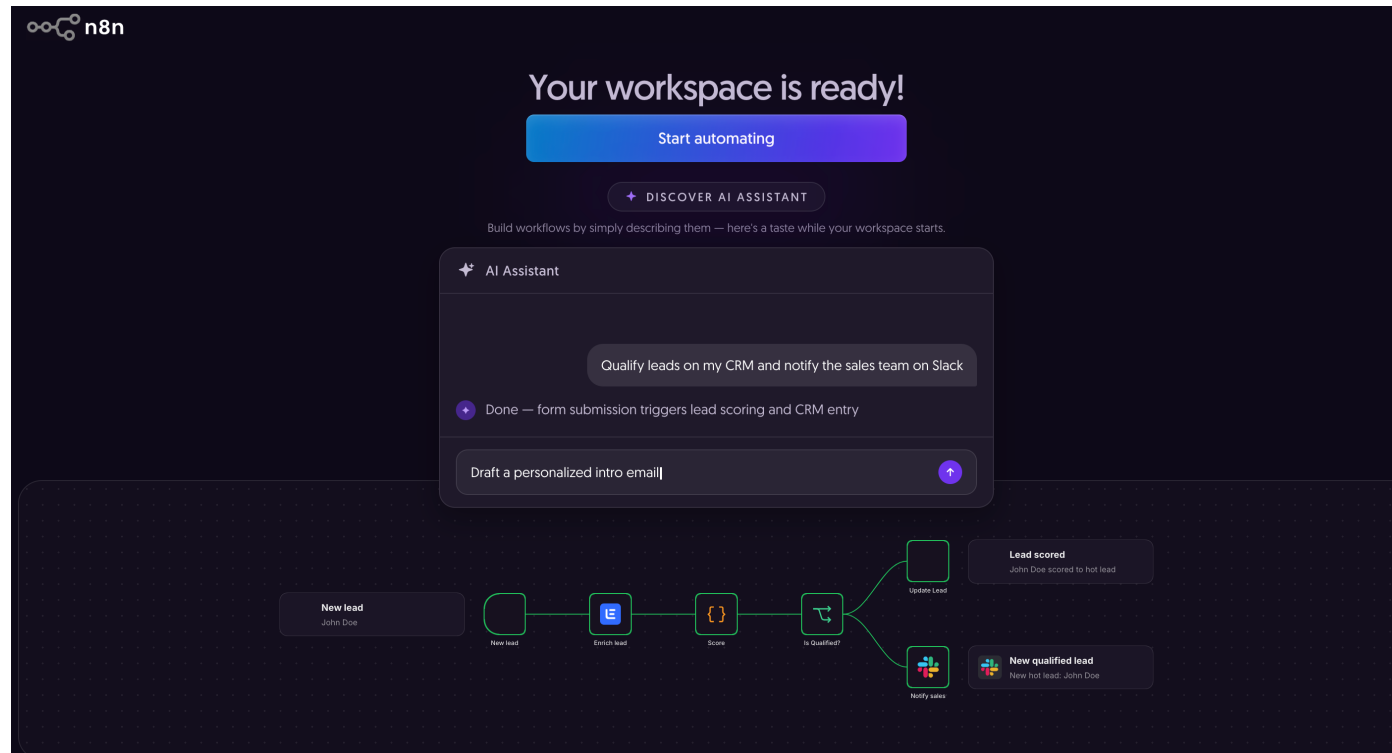
Copilot Studio (Enterprise Only)

<https://copilotstudio.microsoft.com/>



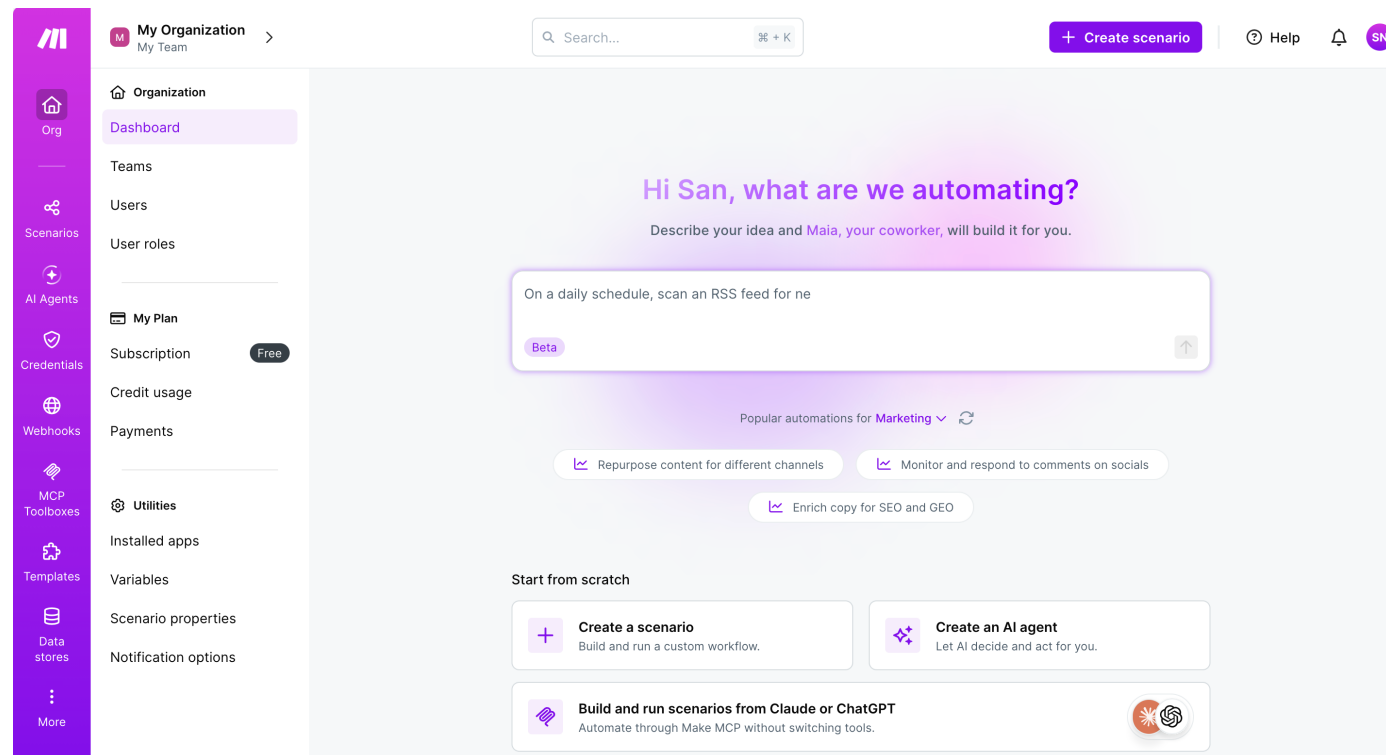
n8n

<https://n8n.io/>





make.com





Associate Workflow Bottlenecks

Associate Workflow Bottlenecks

Junior associates spend up to 65% of their daily bandwidth on high-friction, repetitive synthesis tasks

- **Earnings Disclosure Extraction:** Pulling financial KPIs, EBITDA margins, and guidance from 100+ page SEC filings.
- **Peer Group Benchmarking:** Aggregating market metrics across competitive sets into standardized tables.
- **Client Memorandum Drafting:** Converting unstructured meeting transcripts into structured executive briefing notes.
- **Fact Verification & Compliance:** Cross-checking pitchbook data against source audit documents.

Next-gen Associate Value Proposition

Redefining the Associate Value Proposition

- **Shift their focus toward strategic analysis and decision-making** by delegating brute-force research, document scanning, and tabular formatting to agentic workflows,
- **From Data Gatherer to Agent Orchestrator:** Managing AI worker fleets rather than manual copy-pasting.
- **Higher Output Accuracy:** Structured verification loops reduce human error in numerical disclosures.
- **Accelerated Client Delivery:** Turnaround time for preliminary pitchbooks drops **from days to hours**.

Leveling Up Your AI Toolkits

Leveling up Your AI Toolkits

Let's build AI toolkits that are applicable to your internship opportunities or future jobs using the following platforms.

- **Gemini Gems** – Custom Chatbot
- **Gemini Canvas** – AI Generated Web Apps
- **Copilot Agent** – Use pre-built Agent or Create New Agent
- **Copilot Studio** – Agentic Workflow & AI Agent
- **Gemini Spark** – Agentic Workflow & AI Agent

Gem manager

Premade by Google

Show more ↕



Experiment



Storybook

Create a customized picture book, for either children or adults, given a topic, an...



Experiment



Chess champ

Play chess with a language model. Make your first move using chess notation to star...



Brainstormer

Find inspiration easily. Fresh ideas for parties, gifts, businesses and more.

My Gems ⓘ

+ New Gem



Teaching-Image

Create educational images for purpose of teaching Hong Kong students



Understand Gemini Gems

■ Gem System Prompting

- Configure a custom "Financial Analyst Gem" with precise role constraints, analytical output structure, and valuation formatting rules using strict markdown schemas.

■ Context Grounding

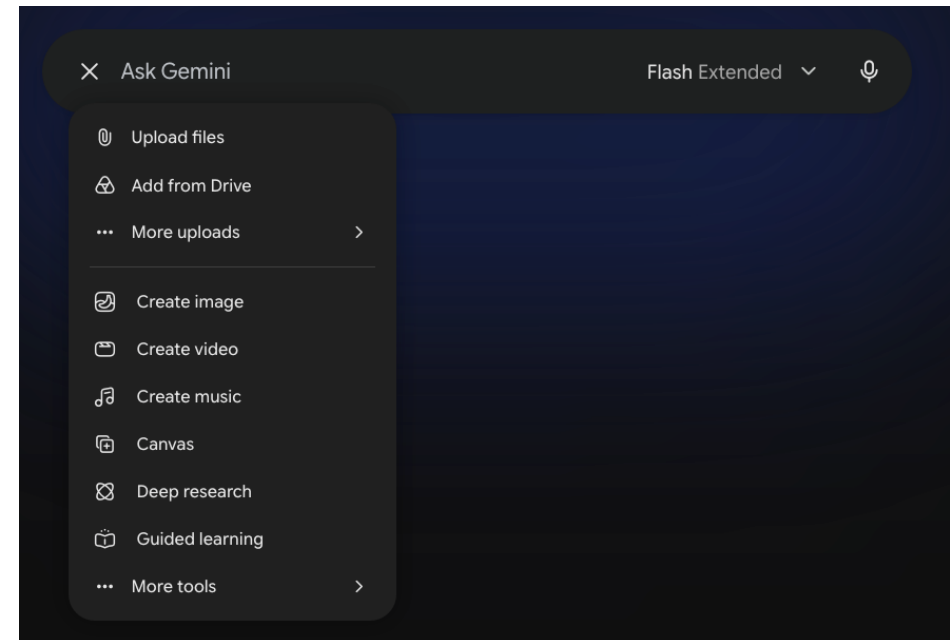
- Attach unstructured corporate annual reports (PDFs) and connect Google Docs knowledge bases into Gemini Notebook to eliminate hallucinatory financial figures.

■ Automated Execution

- Trigger Gemini Deep Research to execute automated peer benchmarking and generate a clean financial analysis table directly into Google Sheets.

Other Gemini Tools/Features

- Create image
- Create video
- Create canvas (web apps)
- Connected Apps
- Gemini Spark (Paid users only)
- Gemini Notebook (Not available in HK yet. Unless using enterprise version)



Understand Copilot Studio

<https://copilotstudio.microsoft.com/>

- Build Topic Triggers
 - Create an autonomous "M&A Due Diligence Agent" in Copilot Studio. Define custom trigger phrases, intent recognition, and conversation nodes.
- Connect Knowledge Sources
 - Link SharePoint deal rooms and corporate data repositories using Microsoft Graph grounding for real-time document query and summary actions.
- Action & Guardrails
 - Implement Python data validation actions, condition nodes, and human approval checkpoints before exporting executive slide deck outlines.



Copilot Studio



Home



Chat



Agents



Workflows



Welcome to the new Copilot Studio Build smarter processes with credit-powered capabilities. [Learn more](#)



New experience

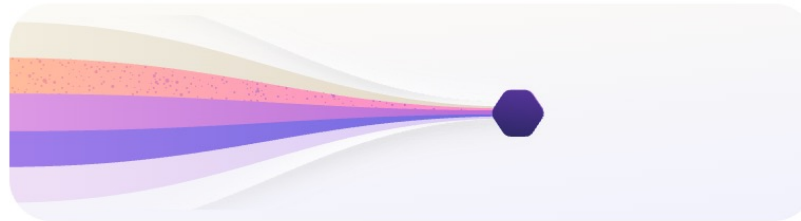


Hey San, what do you want to create?

Optimize your business processes



Uses Copilot Credits



Agent GitHub Copilot

Create an agent to take actions and answer questions.

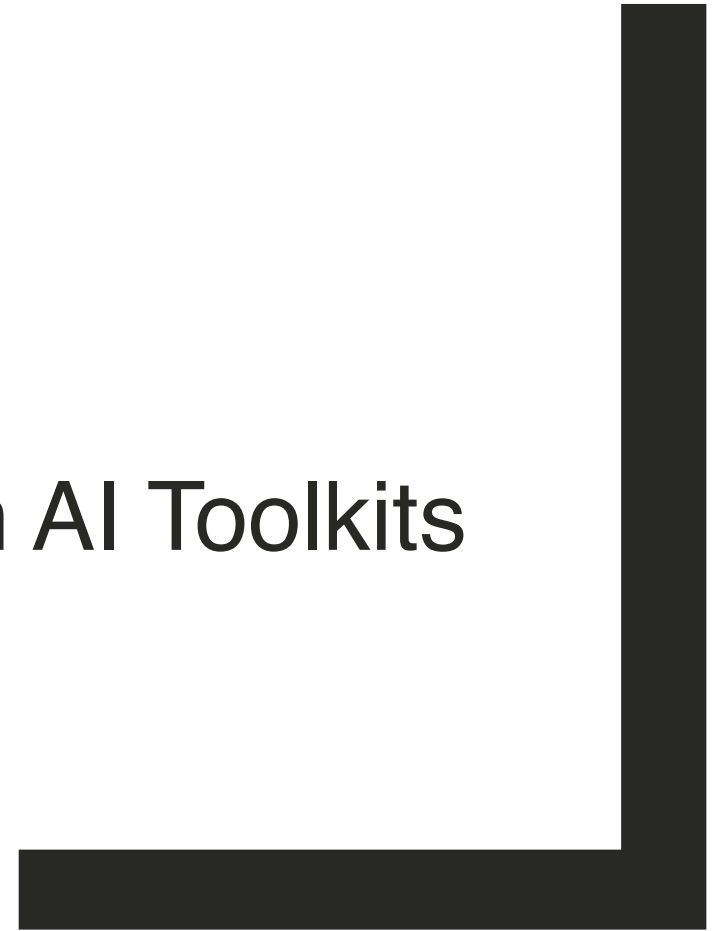


Workflow GitHub Copilot

Automate multi-step processes with triggers, actions, and AI steps.

Try It Yourself

Building Custom AI Toolkits



Some AI Toolkits Ideas

1. Convert Popular YouTube Channel Latest Video to Text Summary (Gem)
2. Social Media Infographic Post Generator (Gem)
3. Covert Screen Captures in English to Chinese Texts or Images (Gem)
4. Interactive Dashboard (Gemini Canvas)
5. Receipt Extractor (Gem)
6. Expense Logger (Spark Skills)
7. Wine Critics & Comparison (Gem)

Multi-Agent Systems & Architecture

Multi-Agent Systems & Architecture

- Designing collaborative AI agent teams with specialized roles, tool calling, and deterministic **Human-In-The-Loop (HITL)** review gates.
- Single prompts often fail on complex tasks.
- Agentic architecture divides responsibilities across specialized roles:

Example Use Case

Agentic Orchestration Architecture

- **Lead Research Agent:** Scrapes market news, earnings calls, and regulatory disclosures.
- **Data Extraction Agent:** Converts unstructured text into validated JSON/CSV structures.
- **Compliance & QA Agent:** Evaluates numerical accuracy against source data before final presentation.
- **Human Review Gate:** Associate validates critical figures before publishing.

Starting Building Up Your Own AI Toolkits

In an AI-driven market, an actual function agent or agentic workflow is the ultimate proof that you can actually master AI tools to automate for you.

Thank You!