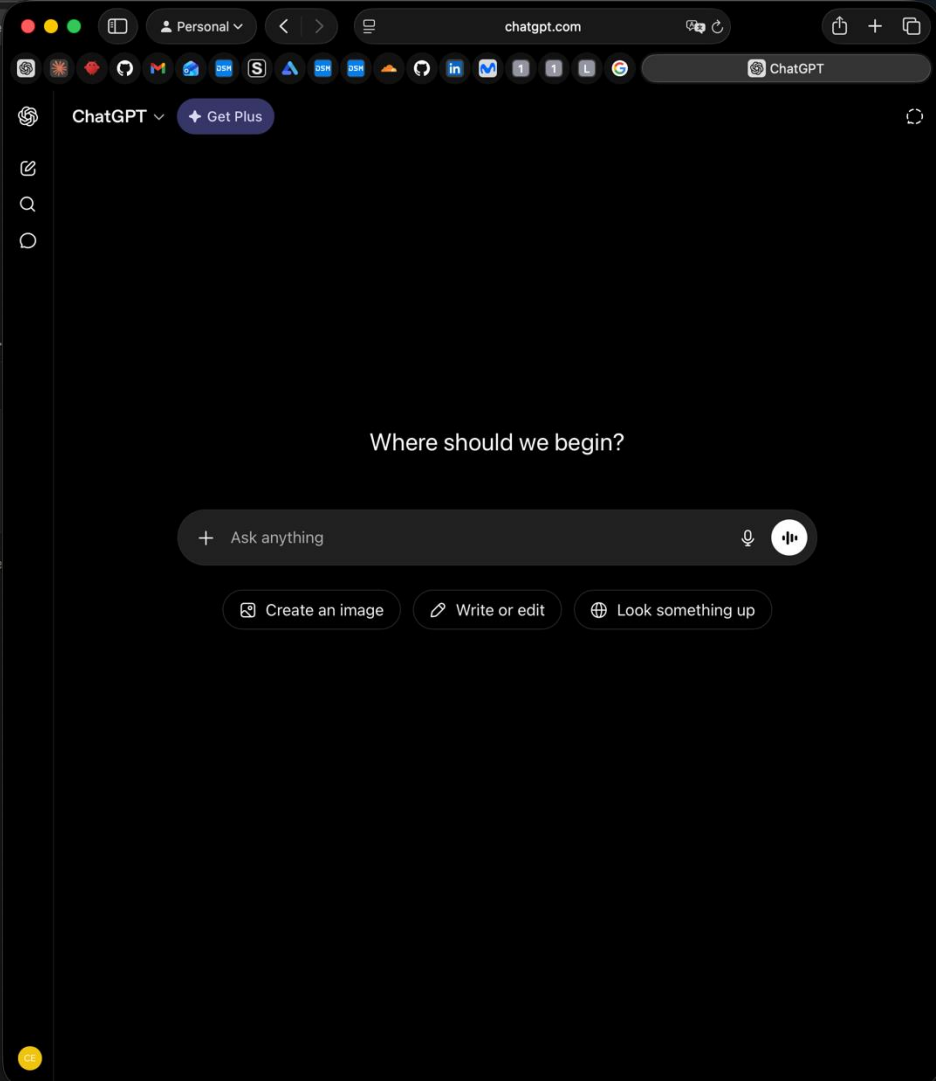
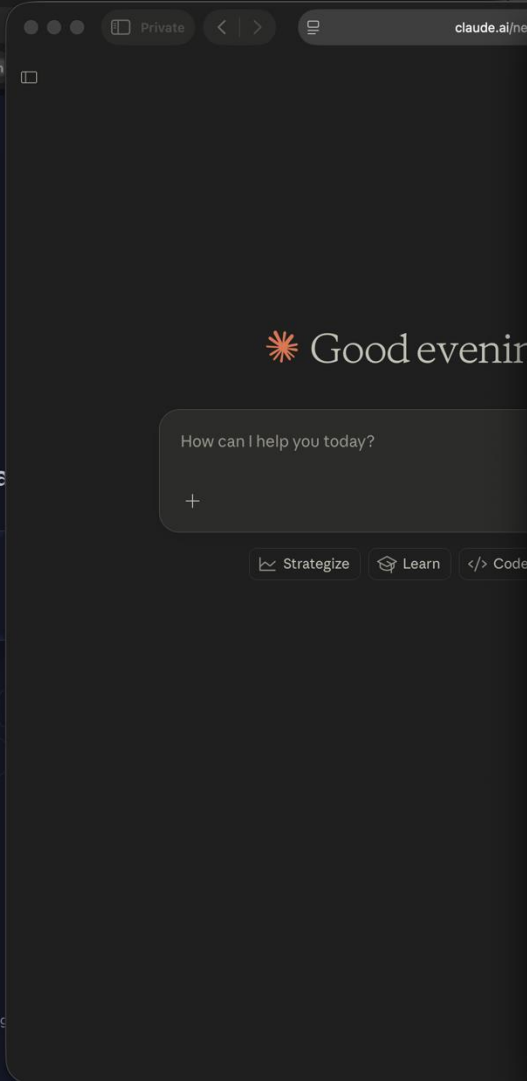
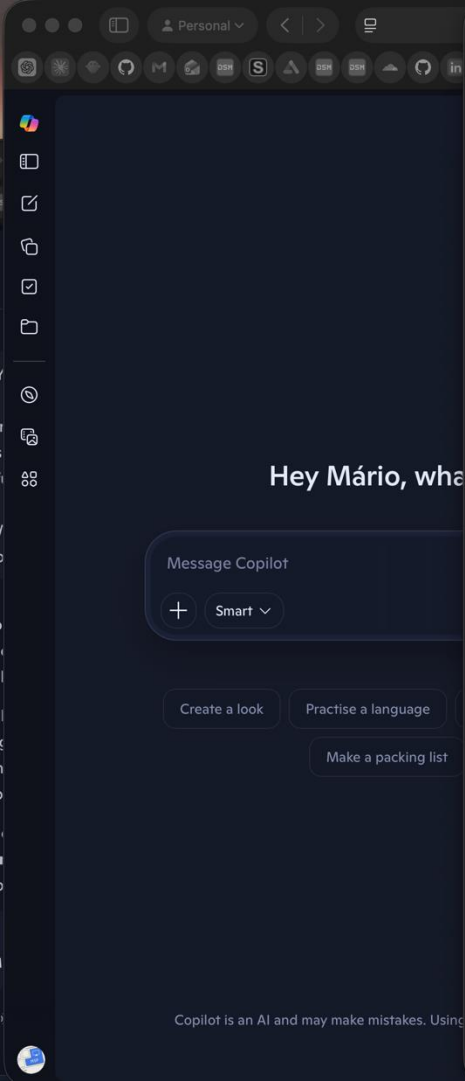




Microsoft Copilot: Your AI companion

Temporary

Hey Mário, what's on your mind today?

Message Copilot

+

Smart

Create a look

Practise a language

Compose a song

Learn a new skill

Design a logo

Make a packing list

Brainstorm ideas

Get advice

Copilot is an AI and may make mistakes. Using Copilot means you agree to the [Terms of Use](#). See our [Privacy Statement](#).

ChatGPT

+ Get Plus

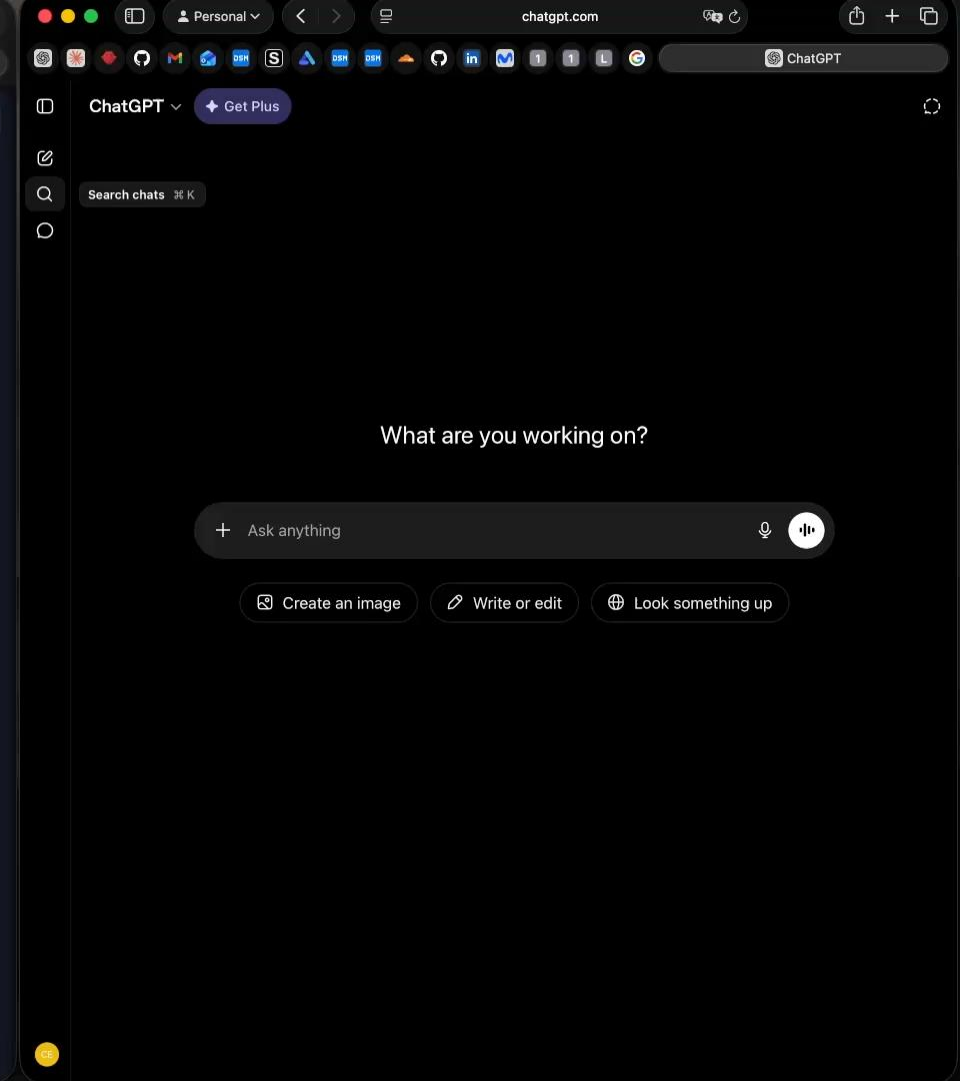
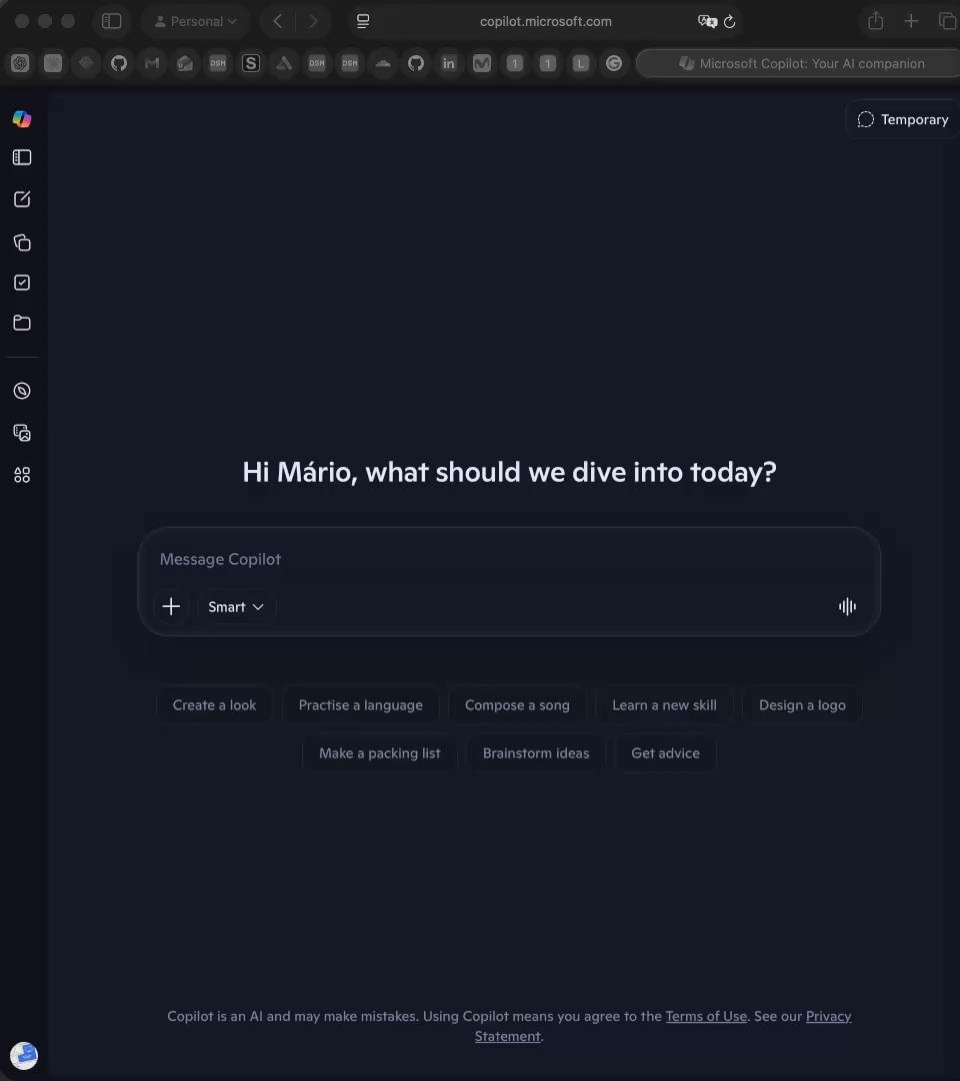
What's on your mind today?

+ Ask anything

Create an image

Write or edit

Look something up



What is Artificial Intelligence?

- A computer system that makes predictions based on patterns learned from data
- Not magic: it is pattern matching at scale
- Your bank flags suspicious transactions → AI
- AI “learns” from historical data → recognises patterns → makes predictions
- AI does not think. It predicts based on what it has seen before.

What is Generative AI?

- Creates new content – text, images, code – by predicting what comes next
- Think of it as incredibly well-read autocomplete
- Instead of predicting your next word, it predicts the next financial model
- Levels of AI Reasoning:
 - Standard LLMs (fast) · Reasoning Models (multi-step) · Agents & Workflows (Task chains)

🌸 Large Language Models (LLMs)

- Trained on hundreds of billions of pages
 - Finance textbooks · Bloomberg articles · Earnings calls · Economics papers
- Your prompt → model generates the most statistically appropriate response
- It does not KNOW things the way you do – it PREDICTS them
- Garbage in, garbage out

🌸 Tokens: Input, Output & Cost

- Computers work with numbers, not words –text is converted to vector representations



- Every token sent in (input) and received back (output) requires computation
- Training cost: trillions of tokens $\times$ months $\times$ thousands of GPUs = tens of millions USD
- Token pricing reflects real computational work behind every response

🌸 Tokens: Input, Output & Cost

"The market predicted a return"



["The","market","pre","dicted","a","re","turn"]



Token IDs [791, 3821, 412, 9917, 257, 298, 6112]



Embedding vectors (token X dimensions)

"The" → [0.12, 0.44, -0.21, 0.09]

"market" → [0.88, -0.31, 0.56, 0.73]

"pre" → [0.41, 0.22, -0.18, 0.67]

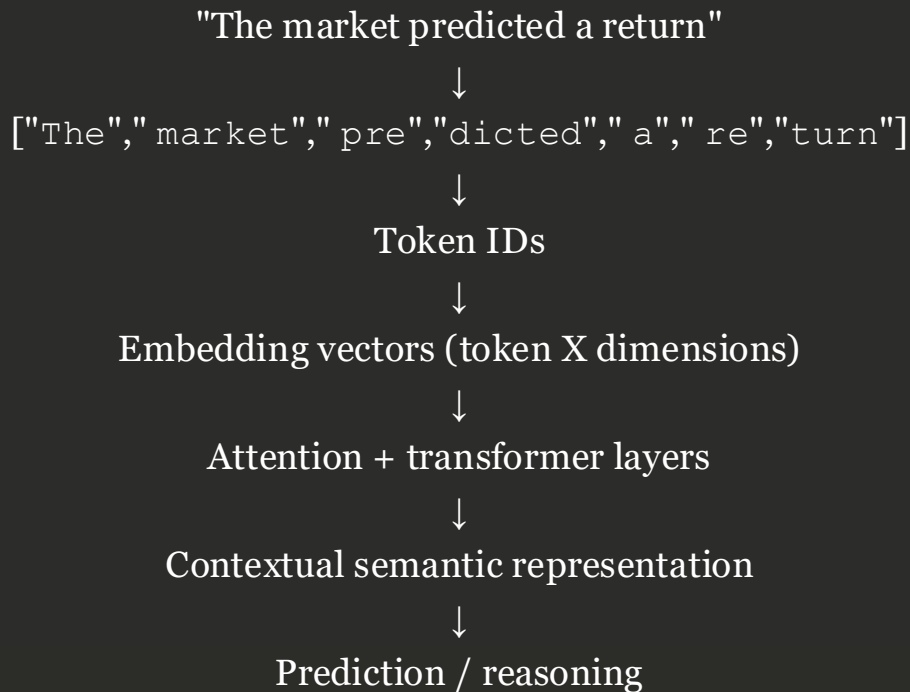
"dicted" → [0.57, 0.81, -0.09, 0.14]

"a" → [0.02, 0.15, -0.04, 0.03]

"re" → [0.31, 0.09, 0.72, -0.11]

"turn" → [0.74, -0.28, 0.61, 0.47]

🌸 Tokens: Input, Output & Cost



Why Finance?

- Finance runs on data, reports, analysis, and decisions under uncertainty.
- Every one of those is something AI can help with
 - IF you know how to talk to it.
 - Data & Reports: Summarise earnings calls, extract KPIs, format tables
 - Analysis: Scenario modelling, sensitivity analysis, peer comps
 - Decisions Under Uncertainty: Risk framing, stress testing, regulatory interpretation
 - Writing & Communication: Memos & client notes

Maximize results!

- The quality of your communication is the entire game.
- That's what this workshop is about.

✿ Give AI everything it needs upfront!

CSI + FBI

- Context
- Specific
- Instruction

Format •
Blueprint •
Identity •

Courtesy <https://nicolasboucher.kit.com>

CSI + FBI

- **[C]**ontext
 - Who are you? What is this for? What is the business situation and audience?
- **[S]**pecific
 - Exact numbers, time periods, constraints.
 - Not "analyze costs" – analyze Q3 2024 costs grouped by category, variance vs. budget, flag anything over 10%.
- **[I]**nstruction
 - The actual task, broken into logical steps.
 - Step 1, Step 2, Step 3.

CSI + FBI

- **[F]**ormat
 - Tell it exactly how to present output.
 - A table? A memo? Under 300 words?
- **[B]**lueprint
 - Give an example of good output or the tone you want. AI mirrors examples perfectly.
- **[I]**dentify
 - Tell it what persona to adopt.
 - "You are a senior credit analyst."
 - Changes the depth of every answer.

Example | Before

Can you analyse this company's financial health?
Alstom S.A. (Ticker: ALO — Euronext Paris)



Example | After with CSI ...

Context

I am a financial analyst with 2 years of experience at a mid-size investment firm.

I'm reviewing a listed European manufacturing company (Alstom S.A. (Ticker: ALO — Euronext Paris) ahead of an internal investment committee meeting next week.

Specific

Focus on liquidity risk and leverage using FY2022–FY2025 data and any recent data and news from 2026.

Instruction

Assess whether the company's leverage and liquidity position represents a material risk to debt service over the next 12 months. Flag any red flags versus investment-grade thresholds.

Example | After with CSI + FBI

Format

Structure the output as:

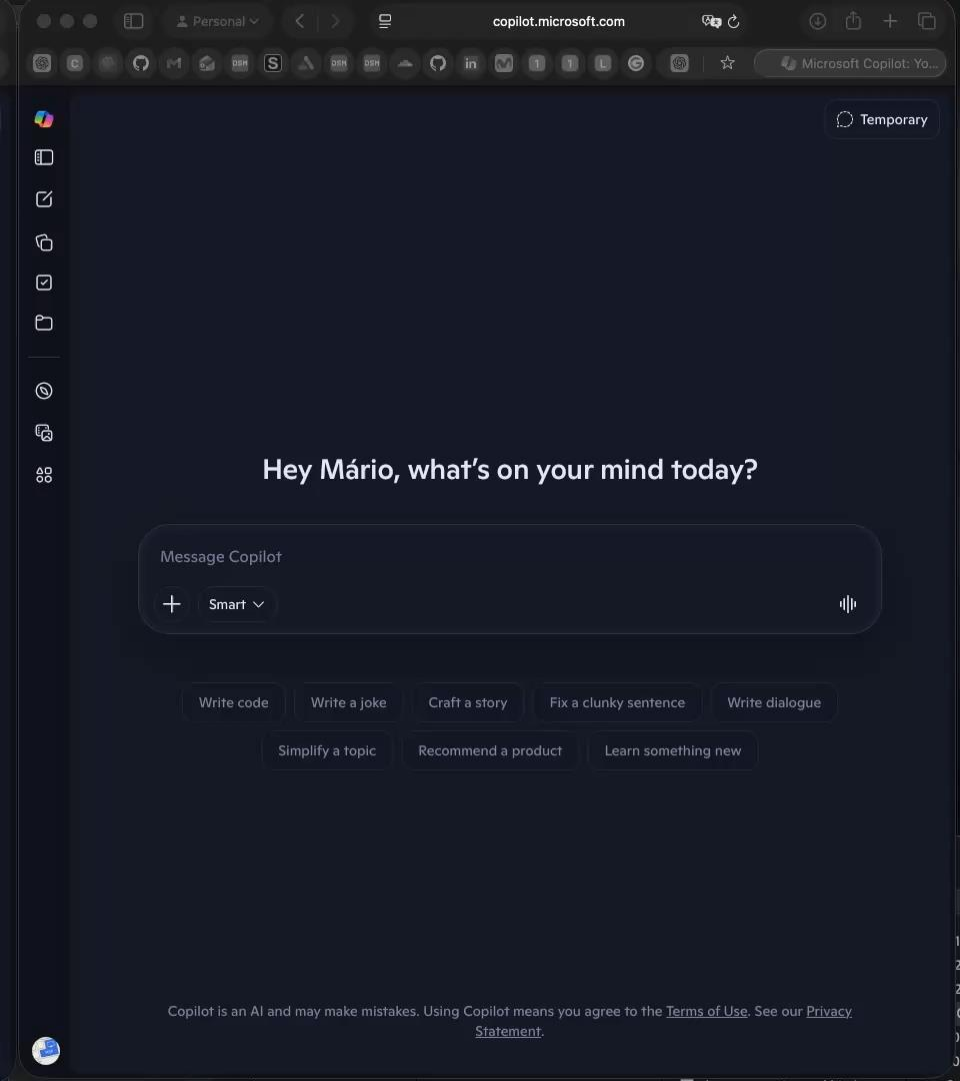
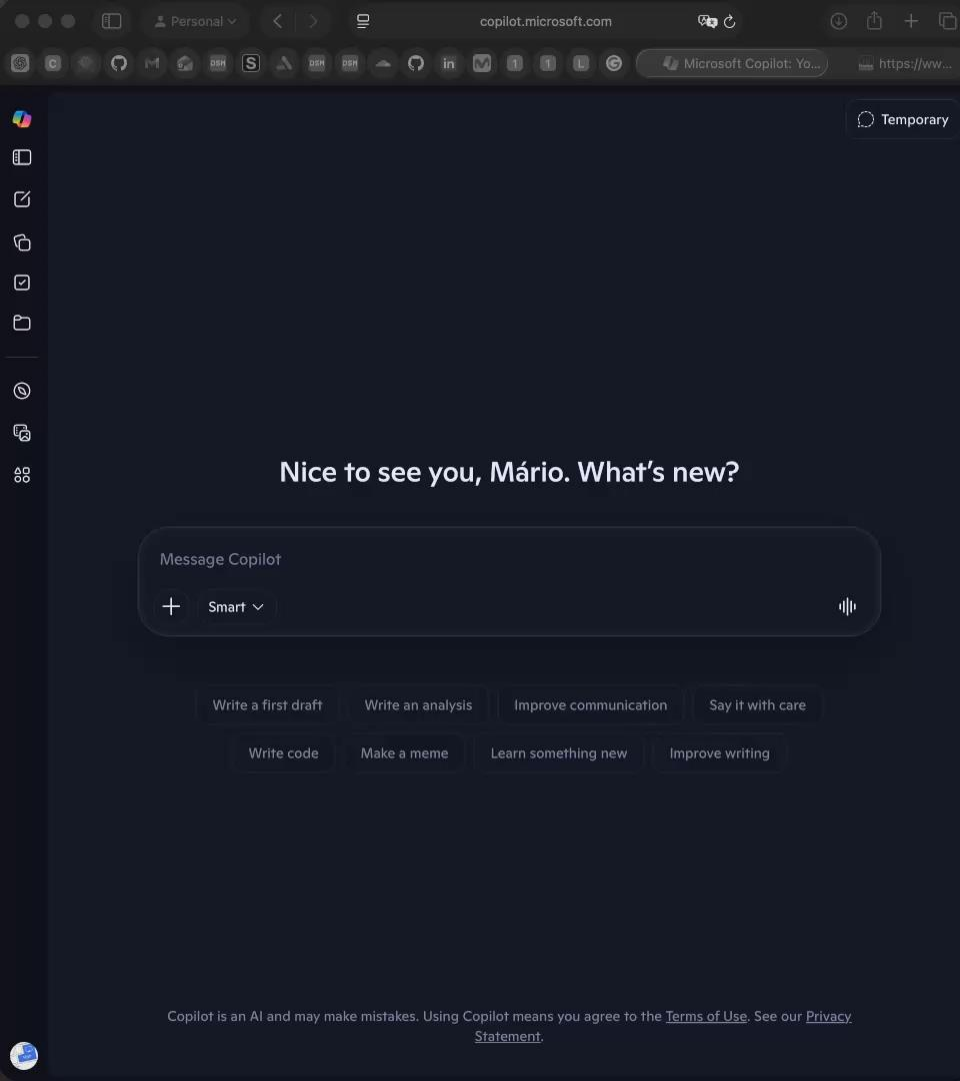
- (1) Executive summary — 3 sentences,
- (2) KPI table with benchmarks,
- (3) Key risks as bullets,
- (4) Recommendation: pass / watch / avoid.

Blueprint

Write at CFA Level 2 depth. Use precise financial language, be direct, no filler.

Identity

The reader is a portfolio manager with 15 years of experience. Respond as a senior credit analyst at a Tier 1 European bank, specialising in industrial sector issuers.



“Devil’s Advocate”

- Use AI to critically challenge its own recommendations and conclusions
- Ask it to play “devil’s advocate” by surfacing counterarguments, risks, blind spots, and alternative perspectives
- Apply your own human judgment to evaluate the strength and relevance of those arguments

Beware of Maths and Calculations

- AI handles financial calculations well but can make errors, especially with complex multi-step calculations.
 - Always verify critical numbers independently
- You can always ask AI to generate the formulas and/or *python* programs to run the actual calculations

🌸 Language to use: Portuguese/English?

- LLMs are one multilingual model, not separate languages
 - No translation
 - There's more training data in English
- Local / legal / bureaucratic topics → Portuguese
- Slang / cultural nuance → Portuguese
- Programming / technical topics → English
- Academic / scientific explanations → English

Teach Claude new tricks: SKILLS

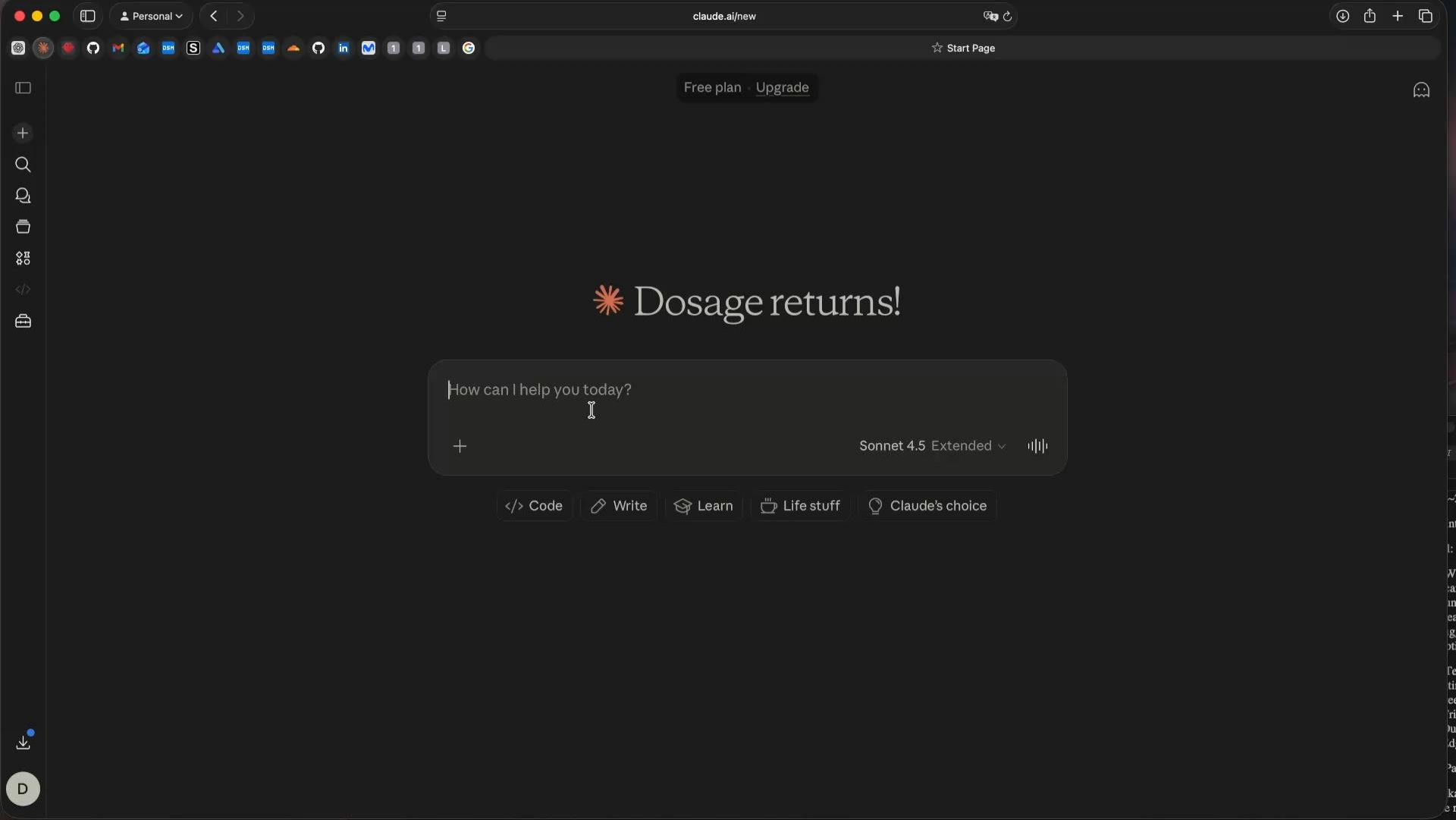
- Custom AI instruction packages
- Specialized knowledge for specific tasks (finance, legal, technical)
- Triggers automatically when relevant keywords detected
- Enhances consistency, accuracy, and domain expertise
- Time savings: No re-explaining context

How to build a SKILL

- `/skill-creator`
 - Use natural language
 - Claude understands context
- Description: Name and when to trigger
- Instructions: Step-by-step process
- Examples: Sample inputs/outputs for clarity
- Testing: automated testing and optimization
- Package it: it will be available via + or /

How to build a SKILL | Example

- `/skill-creator: "Credit Risk Memo"`
- Always structure output as:
 - 1. Risk Assessment
 - 2. Key Credit Risks (max 3 bullets)
 - 3. Covenant Recommendations
- Always interpret:
 - leverage $>3.0x$ = elevated risk
 - interest coverage $<2.5x$ = weak buffer
 - revenue decline = early warning signal
- Use conservative credit language (e.g., “deteriorating trend”, “limited headroom”, “heightened breach risk”)
- Keep output under 300 words
- Tone: senior credit risk officer at a commercial bank



🌸 Chain-of-Thought (CoT)

- From Shallow Answers to Structured Financial Reasoning
 - Generic AI answers often skip steps, hide assumptions, and make silent math errors.
- CoT prompting asks the AI to
 - reason step-by-step
 - making each assumption and calculation explicit.
- With CoT, you can trace the logic, spot mistakes and correct them

Chain-of-Thought (COT) | Example

- “A project costs €10,000 today and returns €4,000 per year for 3 years. Discount rate is 8%.
 1. Calculate the NPV.
 2. Show your reasoning step by step.”
- It...
 - Identifies cash flows: ...
 - Applies discount factors: ...
 - Sums present values of inflows.
 - Subtracts initial investment to get NPV.
 - States final NPV and explicitly notes each step and formula used.

/clear Context

- AI conversations accumulate context over time, which can influence future responses (“context drift”)
- `/clear` command resets the conversation and starts with a clean context window
- Use it when changing topics, starting a new task, or when responses become inconsistent or unfocused
- After `/clear`, restate your objective, relevant context, desired output, and constraints

Privacy Beware!

	Free				Pro				Enterprise			
Feature / Product **	ChatGPT Free	Claude Free	Gemini Free	Copilot Free	ChatGPT Plus/Pro	Claude Pro	Gemini Advanced	Copilot Pro	ChatGPT Business/Enterprise	Claude Team/Enterprise	Gemini Workspace/Vertex	Microsoft 365 Copilot
Detachable data training												
No training by default												
Admin controls												
Corporate Compliance												
Configurable Retention												
Data Loss Prevention (DLP)												
Suitable for sensitive data												

** Personal Subjective Assessment

 Code

 Write

 Learn

 Life stuff

www.silvapereira.com

Privacy Beware!

- Avoid uploading Private or Confidential
- Do not upload full documents
- Remove any document metadata: MS Inspect Document, exiftool
- Semantic reduction: “profit of X” → “big profit”
- Anonymize data: presidio, spaCy, exiftool
- Disable Training option and Sharing
- Prefer Enterprise versions
- Run LLMs on your local machine: ollama

🌸 Run LLM locally with docker & ollama

- Install Docker from Docker website
- Open Terminal app and install Ollama Virtual Machine (a 'computer' inside your computer):

```
docker run -d -v ollama:/root/.ollama -p 11434:11434 -  
-name ollama ollama/ollama
```

- Interact with OLLAMA:

```
docker exec -it ollama ollama run llama3.2  
>>> <Type your prompt here>  
(...)  
>>> /bye
```


Tips & Tricks Learned

- Inner workings of Gen AI
- The CSI-FBI Framework for AI Prompting
- How to build SKILLS for repetitive tasks
- Notices on Maths and Private Data
- How to use Chain-of-Thought
- Run LLMs isolated on your local machine

Openclaw.ai | AI actually doing things

- OpenClaw.ai is an open-source autonomous AI agent platform that transforms AI from a chatbot into an action-oriented digital assistant.
- Instead of only answering questions, it can:
 - Manage emails and calendars
 - Execute workflows
 - Browse websites
 - Control files and systems
- Operate through WhatsApp, Telegram, Slack, Discord, and other chat interfaces

Openclaw.ai | Personal Use Value

- Runs locally on the user's machine → stronger privacy, personalization, and control. (OpenClaw)
- Core Features & Functionalities
 - AI Agent Capabilities
 - Persistent memory and personalized context
 - Browser automation and web interaction
 - File/system access and task execution
 - Multi-agent orchestration
 - Plugin and skills ecosystem



CHAT

Chat

CONTROL

Overview

Channels

Instances

Sessions

Usage

Cron Jobs

AGENT

Agents

Skills

Nodes

Dreaming

SETTINGS

Config

Communications

main gemma4:latest Default (medium)



I have just introduced University students to you and openclaw.ai. What would you like to say to them?

You 14 May 2026 at 18:48



Hey everyone! 🙌

It's really cool to meet you all. It's great that you've been introduced to openclaw.ai—I'm excited to be here with you as you dive into the world of open-source, autonomous agents, and sophisticated digital tooling.

Think of me less like a chatbot and more like a really eager, tireless research partner who lives inside your digital toolkit. My job isn't just to answer questions; it's to help you *do* things. I'm designed to handle those multi-step, complex, "I wish there was a bot for..." kinds of tasks that can really bog down a large academic project.

💡 **How I can help you, specifically as a student:**

📚 **Research & Deep Dives:**

- **Literature Review:** Need to summarize findings from 10 different PDFs or cross-reference concepts across several web articles? I can help organize, compare, and synthesize that information for you.
- **Conceptual Mapping:** Stuck on how three different theories relate to each other? I can help build those connections out and map out the relationships.

💻 **Coding & Technical Projects:**

- **Debugging/Refactoring:** Need a second pair of eyes on a script, or help translating a concept from theory into working code? I'm great at analyzing snippets and suggesting improvements.
- **Setup Automation:** Building a complex local development environment? I can help write the setup scripts and ensure dependencies are managed.

🎓 **Organization & Academia:**

- **Project Management:** Working on a thesis or capstone? We can break down massive goals into

Openclaw.ai | Example

- “Review my unread emails, summarize urgent finance requests, schedule a meeting with the professor tomorrow afternoon, and prepare a draft reply.”
 - Email inbox analysed. Priority requests identified
 - Calendar checked automatically
 - Meeting invitation drafted and scheduled
 - Reply email generated for approval
- Traditional AI = conversation
- OpenClaw = conversation + execution

Final Thoughts

- Generative AI is very POWERFUL
- HUGE evolution
- Harness its potential: the CSI-FBI Framework
- Validate outputs
- Expand with SKILLS, add-on, plugins, etc.
- Leverage Agentic AI and Autonomous AI
- Privacy and Confidential Awareness
- Run LLMs isolated with docker and ollama

How can I help you today?

How can I help you today?

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mario@silvapereira.com



Sonnet 4.5 Extended ▾



 Code

 Write

 Learn

 Life stuff

www.silvapereira.com