Artificial Intelligence 101

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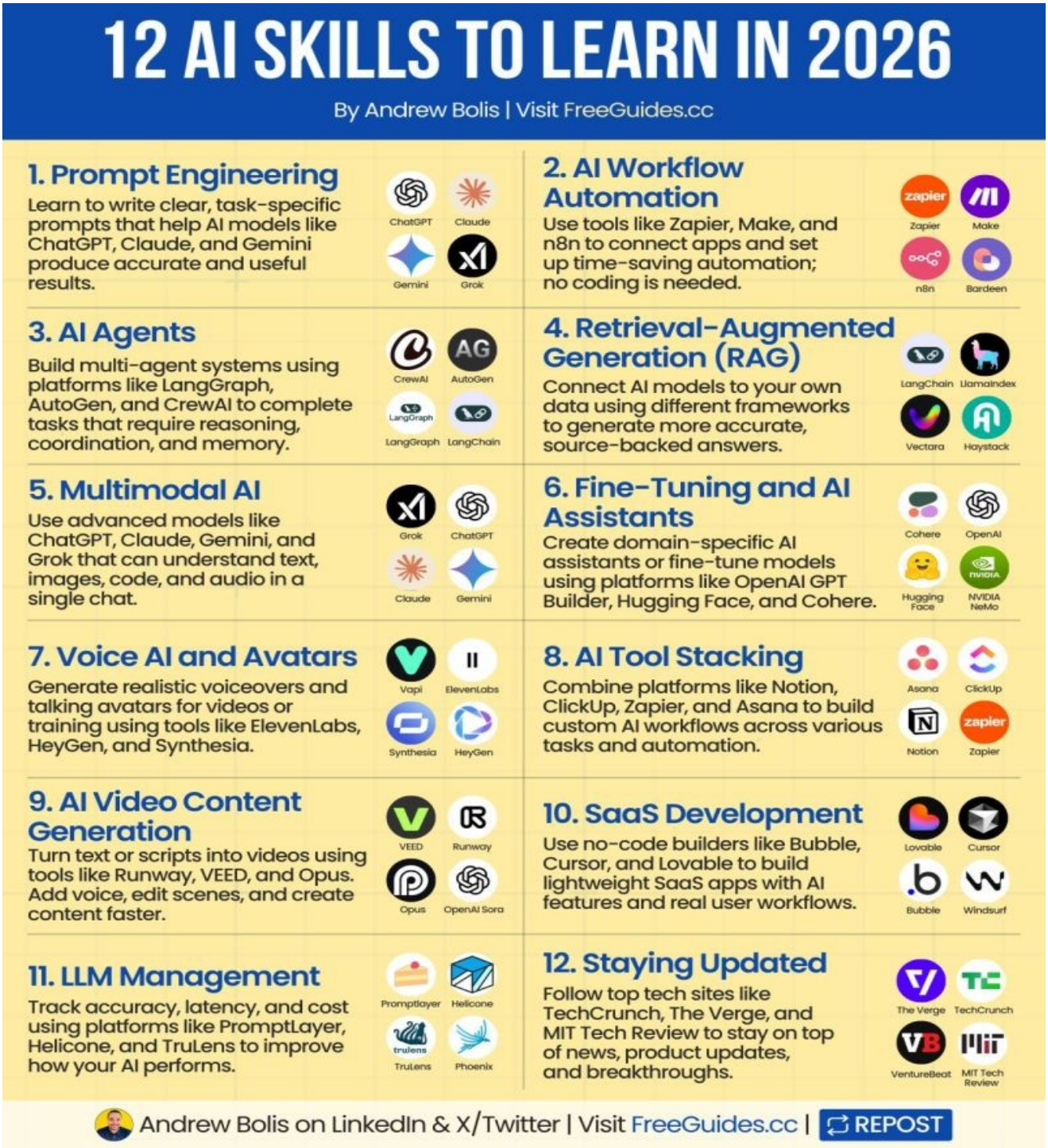

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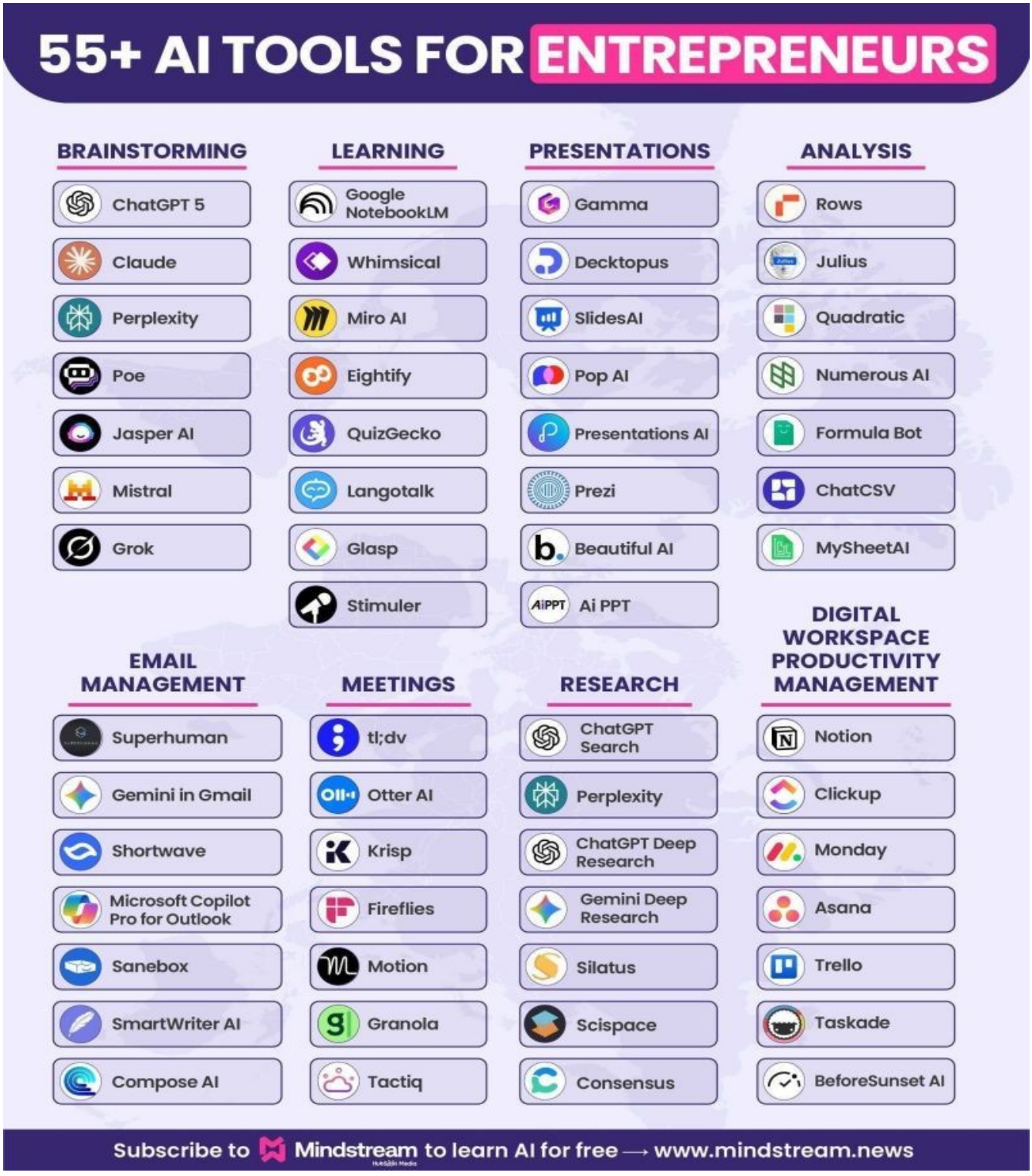

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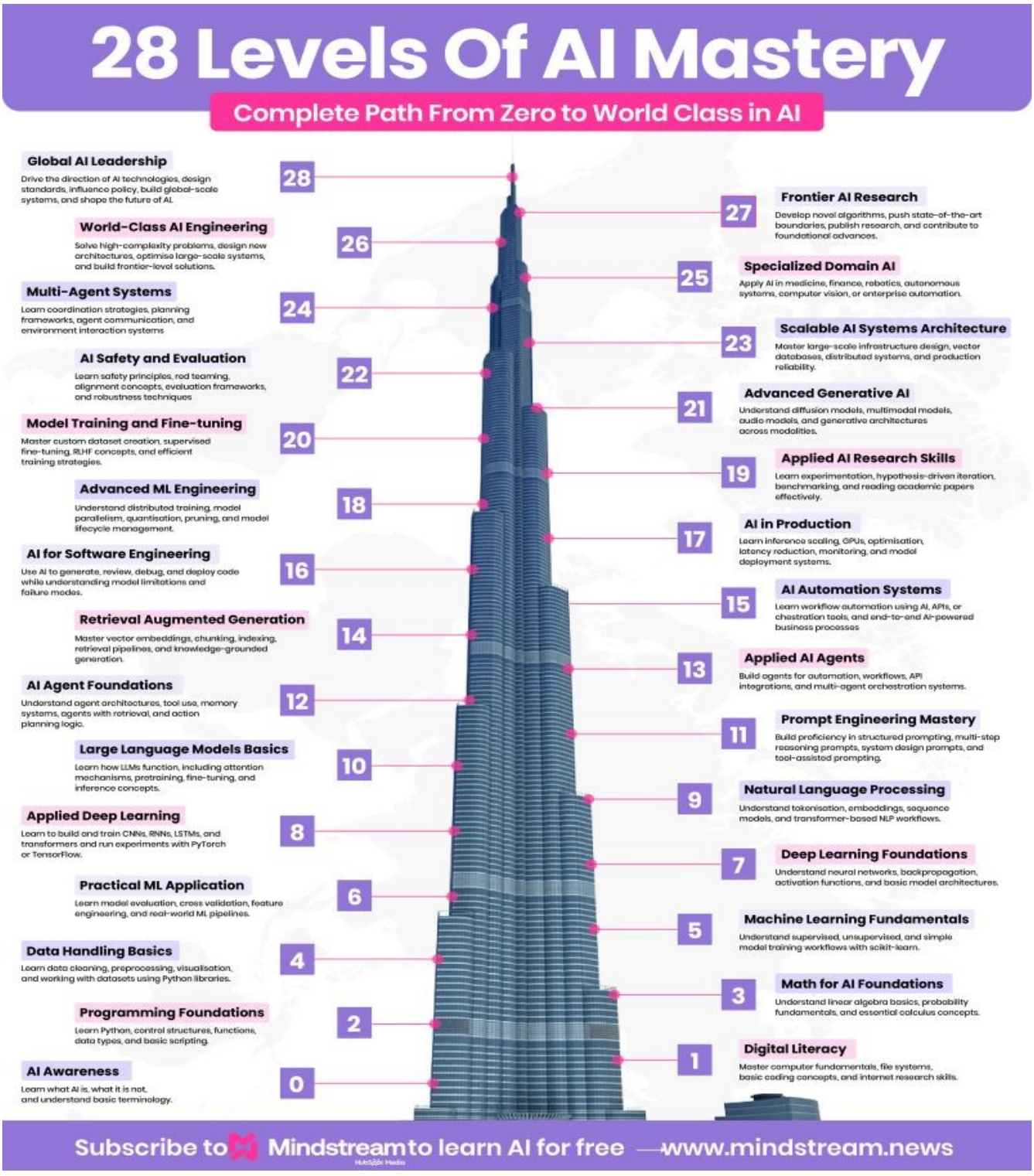

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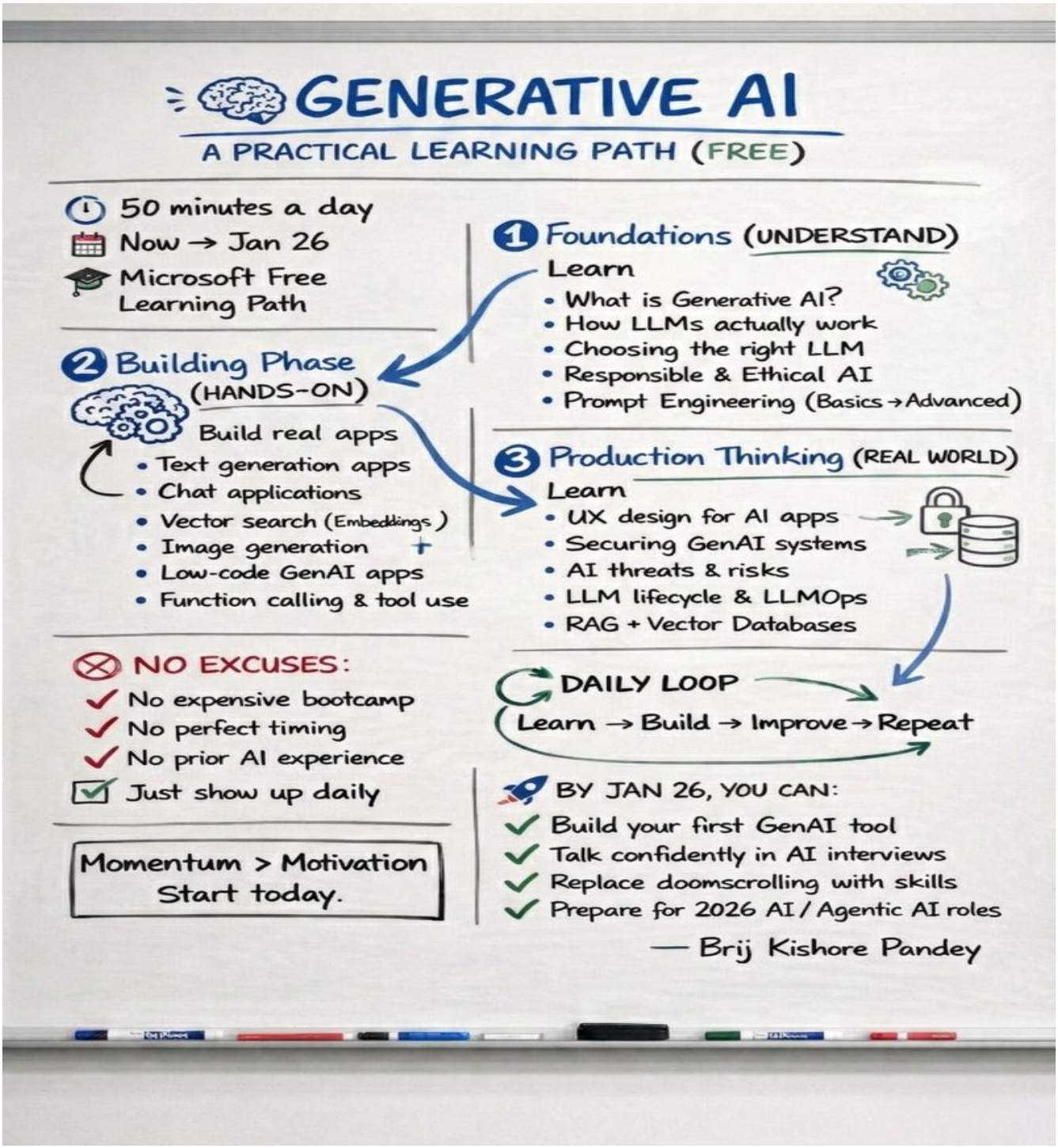

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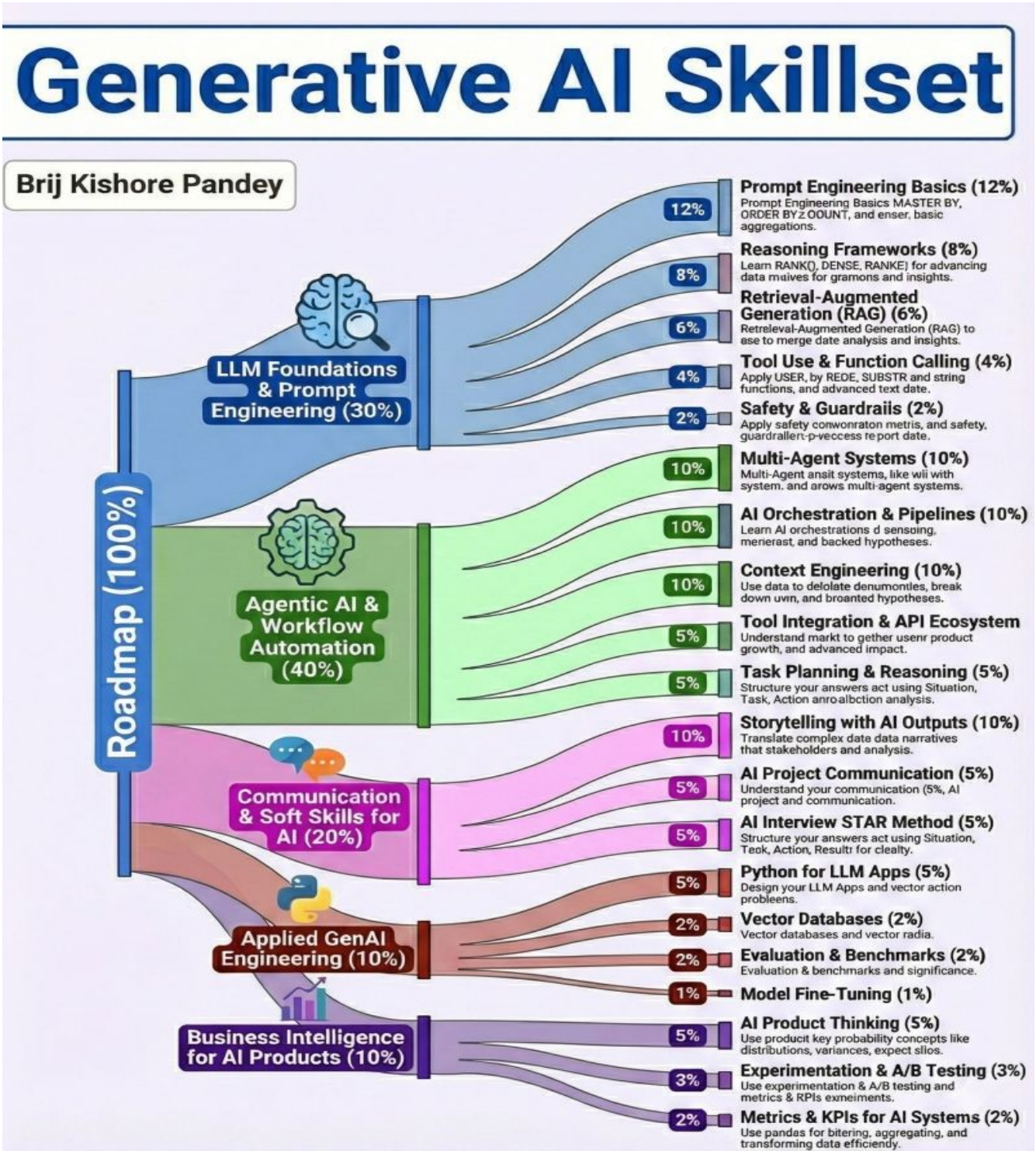
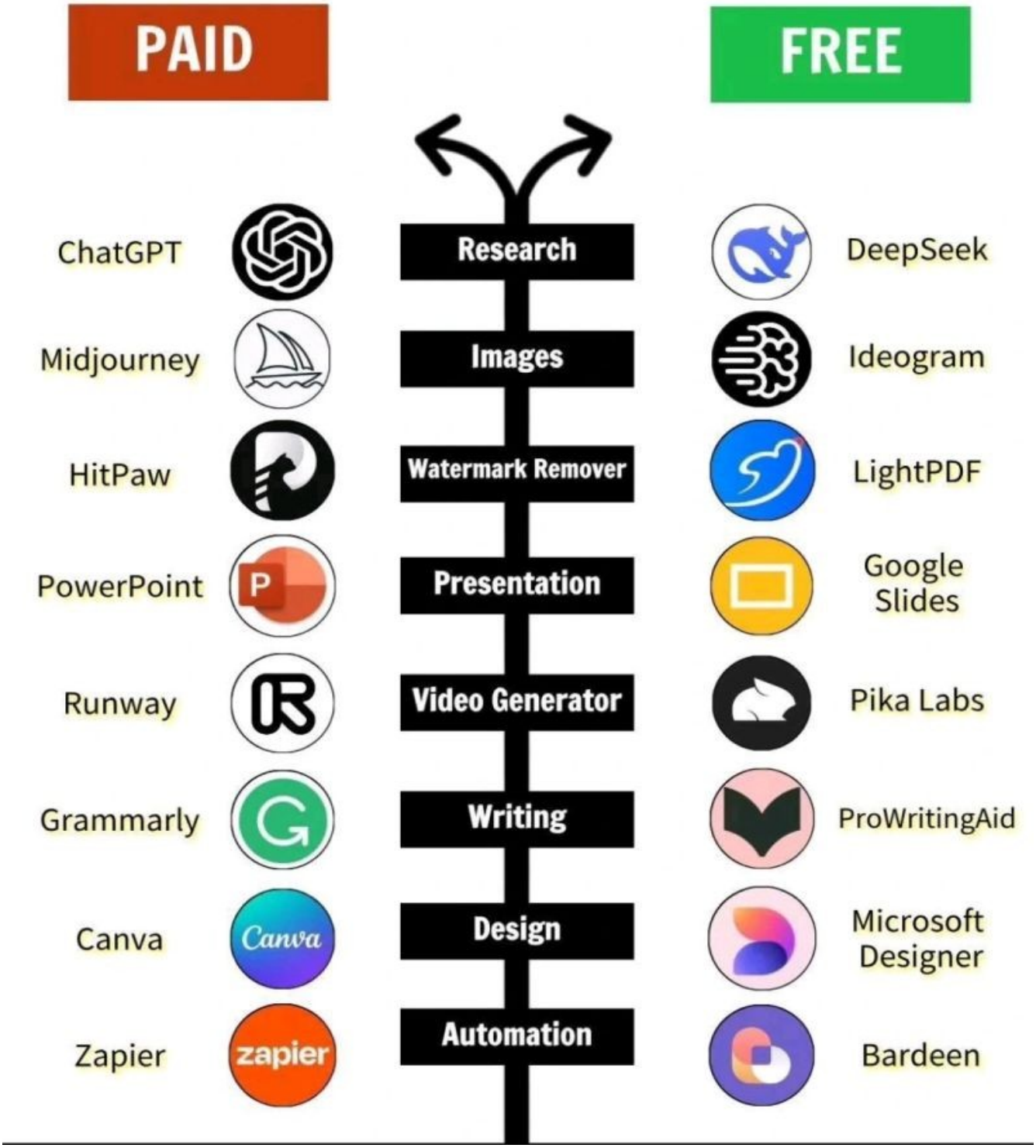

Generative AI Skillset
Brij Kishore Pandey
Roadmap (100%)
LLM Foundations & Prompt Engineering (30%)
Agentic AI & Workflow Automation (40%)
Communication & Soft Skills for AI (20%)
Applied GenAI Engineering (10%)
Business Intelligence for AI Products (10%)
12%
Prompt Engineering Basics (12%)
Prompt Engineering Basics MASTER BY, ORDER BYz OOUNT, and enser, basic aggregations.
8%
Reasoning Frameworks (8%)
Learn RANK(), DENSE, RANKE} for advancing data muives for gramons and insights.
6%
Retrieval-Augmented Generation (RAG) (6%)
Retreleval-Augmented Generation (RAG) to ese to merge date analysis and insights.
4%
Tool Use & Function Calling (4%)
Apply USER, by REDE, SUBSTR and string functions, and advanced text date.
2%
Safety & Guardraiis (2%)
Apply safety conwonraton metris, and safety, guardrallert-p-veccess report date.
10%
Multi-Agent Systems (10%)
Multi-Agent ansit systems, like wli with system. and arows multi-agent systems.
10%
AI Orchestration & Pipelines (10%)
Learn AI orchestrations d sensoing, menierast, and backed hypotheses.
10%
Context Engineering (10%)
Use data to delolate denumontles, break down uvin, and broanted hypotheses.
5%
Tool Integration & API Ecosystem
Understand markt to gether usenr product growth, and advanced impact.
5%
Task Planning & Reasoning (5%)
Structure your answers act using Situation, Task, Action anroalbction analysis.
10%
Storytelling with AI Outputs (10%)
Translate complex date data narratives that stakeholders and analysis.
5%
AI Project Communication (5%)
Understand your communication (5%, AI project and communication.
5%
AI Interview STAR Method (5%)
Structure your answers act using Situation, Teok, Action, Resultr for clealty.
5%
Python for LLM Apps (5%)
Design your LLM Apps and vector action probleens.
2%
Vector Databases (2%)
Vector databases and vector radia.
2%
Evaluation & Benchmarks (2%)
Evaluation & benchmarks and significance.
1%
Model Fine-Tuning (1%)
5%
AI Product Thinking (5%)
Use producit key probability concepts like distributions, variances, expect slios.
3%
Experimentation & A/B Testing (3%)
Use experimentation & A/B testing and metrics & RPIs exneiments.
2%
Metrics & KPIs for AI Systems (2%)
Use pandas for bitering, aggregating, and transforming data efficiendy.

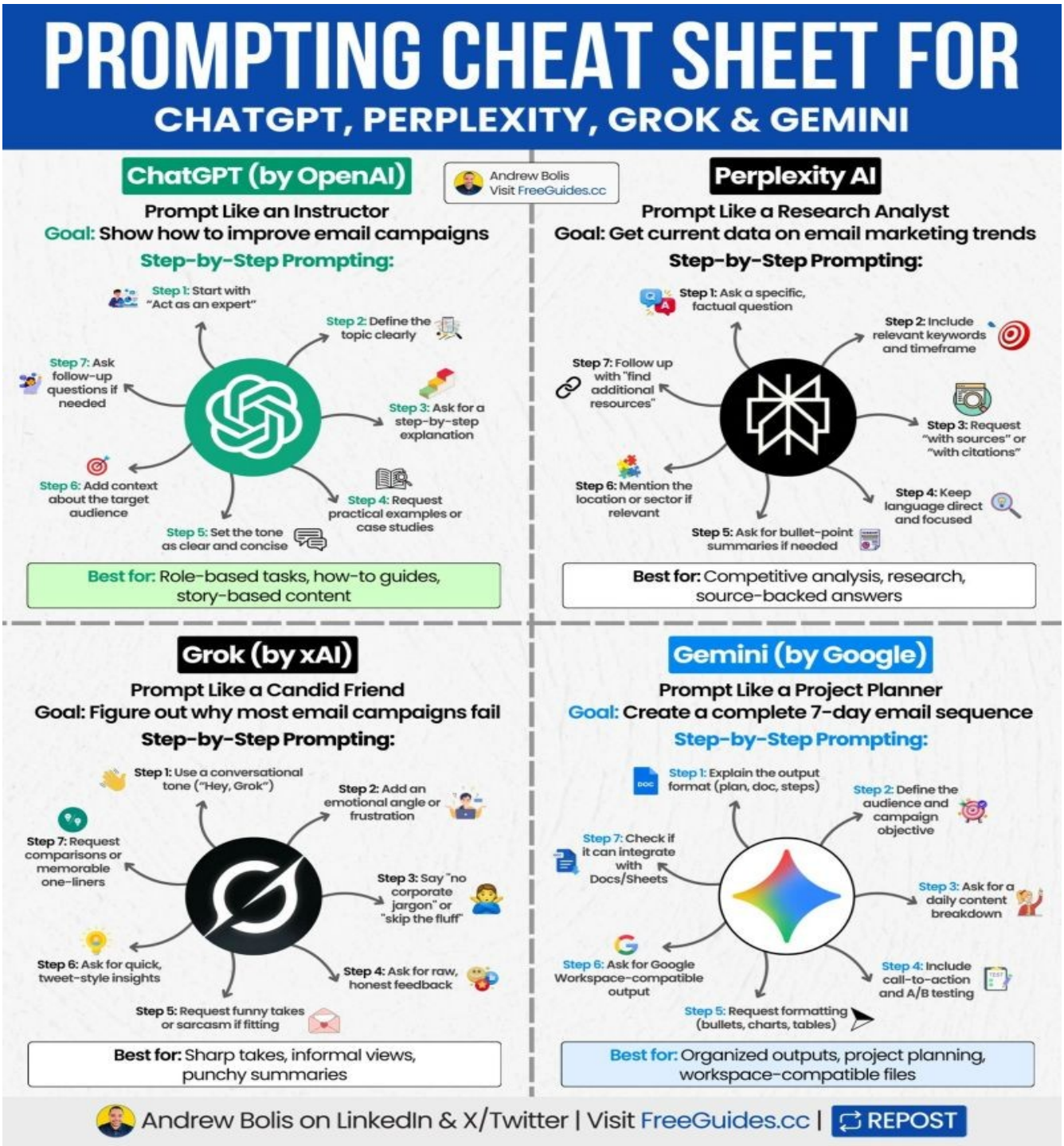
Artificial Intelligence 101



WHICH LLM TO CHOOSE?

Tool	What it does	Typical prompt	Best LLM
Search (Web Browsing)	Finds real-time info with sources.	"Find latest UK inflation figures."	Perplexity
Deep Research	Multi-step synthesis with citations.	"Analyse top trends in B2B SaaS marketing for 2025."	Gemini 2.5
Vision – Image Input & Generation	Upload and analyse or generate images.	"Analyse this chart for trends."	ChatGPT-5
Vision – Video Input & Generation	Upload, analyse, or generate video content.	"Summarise key scenes in this marketing video."	Gemini 2.5
Camera Mode	Guides you live via device camera.	"Help me fix this Excel formula."	Google AI Studio
Voice Mode	Hands-free voice conversation.	"Summarise the news while I drive."	ChatGPT-5
File Uploads	Summarises, answers questions on docs.	"Summarise this 80-page strategy deck."	Claude Opus 4.1
Data Analysis (Code Interpreter)	Cleans, analyses, and visualises data.	"Plot sales from this CSV."	Claude Opus 4.1
Canvas (Collaborative Workspace)	Live co-writing or coding.	"Create a landing page mock-up."	Claude Opus 4.1
Memory (opt-in)	Remembers facts you set.	"Remember my preferred writing style."	ChatGPT-5
Custom Instructions	Sets tone and style for all chats.	"Always use concise bullet points."	ChatGPT-5
Projects	Groups related chats & files.	"Organise all Bootcamp launch materials."	Claude Opus 4.1
Scheduled Tasks (Automations)	Sends reminders or runs actions.	"Remind me every Monday at 8am."	Perplexity
Custom GPTs	Builds niche AI assistants.	"Create a GPT that writes sales emails."	ChatGPT-5
Agent Mode	Executes tasks from research to booking.	"Plan my Tokyo trip with itinerary."	Perplexity
Connectors	Links your LLM to external apps.	"Connect to my CRM and summarise latest sales pipeline."	Claude Opus 4.1
Study and Learn Mode	Guides you through lessons, quizzes, and deep understanding of topics.	"Teach me intermediate Python with exercises and feedback."	Gemini 2.5

Follow Charlie Hills AI Content Marketer for more helpful content REPOST


PROMPTING CHEAT SHEET FOR
CHATGPT, PERPLEXITY, GROK & GEMINI
ChatGPT (by OpenAI)
Andrew Bolis
Visit FreeGuides.cc
Prompt Like an Instructor
Goal: Show how to improve email campaigns
Step-by-Step Prompting:
Step 1: Start with "Act as an expert"
Step 2: Define the topic clearly
Step 3: Ask for a step-by-step explanation
Step 4: Request practical examples or case studies
Step 5: Set the tone as clear and concise
Step 6: Add context about the target audience
Step 7: Ask follow-up questions if needed
Best for: Role-based tasks, how-to guides, story-based content
Perplexity AI
Prompt Like a Research Analyst
Goal: Get current data on email marketing trends
Step-by-Step Prompting:
Step 1: Ask a specific, factual question
Step 2: Include relevant keywords and timeframe
Step 3: Request "with sources" or "with citations"
Step 4: Keep language direct and focused
Step 5: Ask for bullet-point summaries if needed
Step 6: Mention the location or sector if relevant
Step 7: Follow up with "find additional resources"
Best for: Competitive analysis, research, source-backed answers
Grok (by xAI)
Prompt Like a Candid Friend
Goal: Figure out why most email campaigns fail
Step-by-Step Prompting:
Step 1: Use a conversational tone ("Hey, Grok")
Step 2: Add an emotional angle or frustration
Step 3: Say "no corporate jargon" or "skip the fluff"
Step 4: Ask for raw, honest feedback
Step 5: Request funny takes or sarcasm if fitting
Step 6: Ask for quick, tweet-style insights
Step 7: Request comparisons or memorable one-liners
Best for: Sharp takes, informal views, punchy summaries
Gemini (by Google)
Prompt Like a Project Planner
Goal: Create a complete 7-day email sequence
Step-by-Step Prompting:
Step 1: Explain the output format (plan, doc, steps)
Step 2: Define the audience and campaign objective
Step 3: Ask for a daily content breakdown
Step 4: Include call-to-action and A/B testing
Step 5: Request formatting (bullets, charts, tables)
Step 6: Ask for Google Workspace-compatible output
Step 7: Check if it can integrate with Docs/Sheets
Best for: Organized outputs, project planning, workspace-compatible files
Andrew Bolis on LinkedIn & X/Twitter | Visit FreeGuides.cc | REPOST

Artificial Intelligence 101

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Ultimate Google Gemini 3 Guide

What Matters In A Prompt?

RTCROS Prompt Framework Explained

Role	Define who the AI should act as (e.g., expert, teacher, coach).
Task	Specify the exact job or output you want the AI to complete.
Context	Give details, boundaries, and exclusions to guide the AI properly.
Reasoning	Ensure logical steps, accuracy, and validation checks.
Output Format	Tell ChatGPT the exact structure in which to return results.
Stop Conditions	Clarify when ChatGPT should consider the task finished.

Example Prompt

Act as a financial literacy coach & recommend 5 unique, beginner-friendly personal finance strategies for young professionals starting their first job.

- *Begin with a checklist of 3–7 steps outlining how you'll generate the recommendations.*
- *Exclude generic advice like "save money" or "create a budget" - focus on lesser-known but practical strategies.*
- *Prioritize accuracy by referencing established financial practices and widely accepted resources.*
- *Ensure each strategy includes a short explanation of why it matters and how to implement it.*
- *Return as a properly formatted numbered list with [Strategy | Why it matters | How to implement].*
- *Present 5 strategies, excluding generic ones, validated for accuracy, & written in clear, actionable language.*

Prompt Template

Act as [Role] to [Task].

- *Begin with a checklist of 3–7 steps to plan how you'll complete the task.*
- *Ensure the content is accurate, unique, and excludes [things to avoid].*
- *Prioritize clarity and practical value when presenting results.*
- *Internally validate & cross-check information before finalizing.*
- *Return the results in this format: [desired output format].*
- *The task is complete when [stop condition].*

What's new in Google Gemini 3?

- Google's most intelligent model, excelling in reasoning, multimodal tasks, and agentic workflows.
- Understands and processes text, images, audio, video, and code in a unified way for richer, context-aware interactions.
- Features advanced "Deep Think" mode for solving complex, multi-step problems with higher accuracy.
- Demonstrates improved tool use, autonomous coding, and seamless orchestration of multi-step tasks.
- Offers a massive context window (up to 1 million tokens) and industry-leading multimodal benchmark performance.

Models You Can Use

Fast	Thinking With Gemini 3 Pro
Get answers fast	Get answers with more reasoning

Tools In Gemini

Use Google's nano banana pro model to create images from simple text prompts and reference images.	Generate presentations, infographics, web pages, audio overviews, flashcards and more on any topic from a simple text prompt.
Create Images	**Canvas**
Guided Learning	**Visual Layout**
Helps you learn complex topics in a better way.	Generates an immersive, magazine-style view of information, complete with photos and interactive modules.

Gems In Gemini

These are custom specialist AI assistants that help with you in specific topics.

Gems You Can Try:

- **Career Guide:** Get career growth assistance
- **Chess champ:** Play chess with AI
- **Storybook:** Create a customised picture book

You can also build your own Gems in Gemini from simple text prompts with AI.

Build Web Apps:
Build web apps with Gemini in Google AI Studio from simple text prompts and by using the available AI functionalities.

Pros

- State-of-the-art reasoning, beating Gemini 2.5 Pro on all major benchmarks.
- Much stronger coding performance, with about 35% higher accuracy on real software tasks.
- Advanced multimodal understanding across text, images, and video.
- Supports very long contexts (up to around 1M tokens) for large data.

Cons

- Still hallucinates and needs fact-checking, with no major reduction in hallucination rate vs 2.5.
- Long-context reliability degrades beyond roughly 120–150k tokens, causing "summary drift."
- Structured outputs can be inconsistent under stress, hurting strict JSON or schema use cases.
- Vision and layout reasoning can struggle on dense dashboards or complex PDFs.
- Safety filters can be oversensitive, especially on finance or medical-style prompts.

Do's

- Use concise and clear prompts for best results with Gemini 3.
- Use Gemini 3's multimodal capability to analyse and create visuals directly.
- Utilise Gemini 3 for complex multi-step workflows like coding, report generation, and planning tasks.
- Take advantage of Gemini 3's improved reasoning and factual accuracy in research and learning.

Don'ts

- Avoid adding overcomplicated prompts.
- Don't give different tasks with different contexts in one prompt.
- Do not use Gemini 3 for generating harmful or unsafe content, including violence or illegal activities.
- Avoid sharing sensitive or private data without understanding privacy and security implications.

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