

The **Large Language Model (LLM)** Landscape & Evolving Approaches To Building **Generative Applications**



Cobus Greyling - Chief Evangelist

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Large Language Models

Text Generation

Embeddings

Classification

Knowledge Answering

Speech Recognition

Language Translation

Dialog Generation



HuggingChat

cohere Coral

DialogGPT

BlenderBot

GODEL

cohere

AI21 labs

AI Anthropic

OpenAI

Google Cloud

EleutherAI

Microsoft

openai/whisper

Meta NLLB

Meta

Sphere (Meta AI)

BLOOM

OpenAI Codex

BigCode

TII

mosaicML

NVIDIA

GooseAI

stability.ai

Vector Stores

Data Centric Tooling

HumanFirst

Hosting & Hubs

GitHub

Hugging Face

Playgrounds & Prompt Engineering

Writing Assistant & SEO Management

Content & Idea Creation

Generative Assistants

Data Extraction & Conversational Search

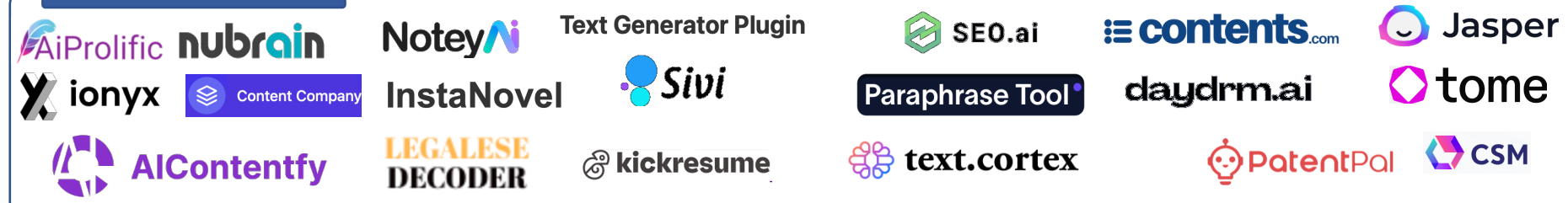
Flow Builders

Foundation Large Language Model Stack

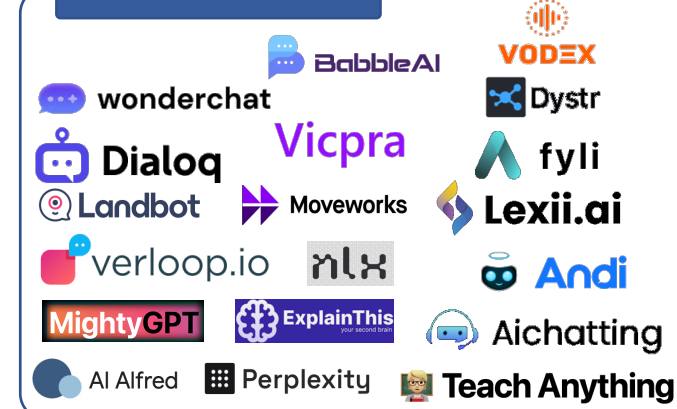
Writing Assistant & SEO Management



Content & Idea Creation



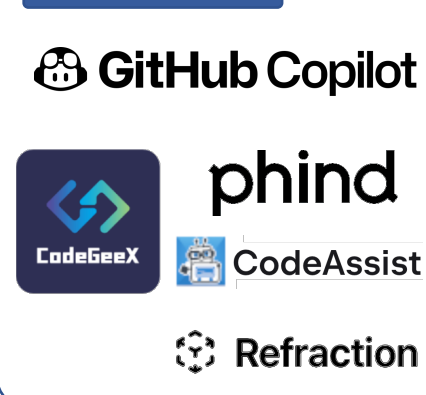
Generative Assistants



Data Extraction & Conversational Search



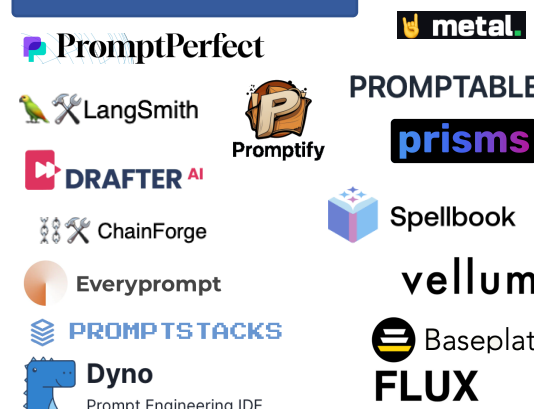
Developer/Coding Assistants



LLM API Build Frameworks



Prompt Engineering Tools



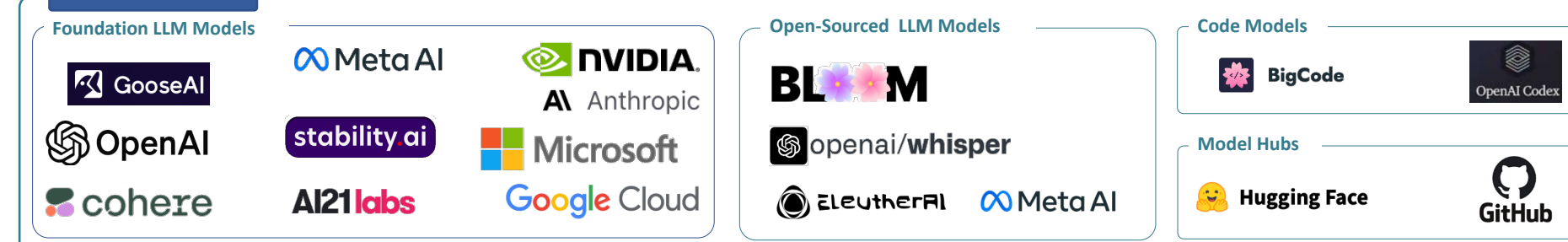
Vector Stores / Databases



Data Centric Tooling



Models & Hubs



End User Applications

LLM Development Tools

Foundation Models & Hubs

Conversational AI Technologies

LLM Enabled Chatbot Development Frameworks

RASA OneReach.ai **Ada** **kore.ai** **boost.ai** **knowbl** **Voiceflow**
COGNIGY **botpress** **AMELIA** **yellow.ai** **LIVEPERSON** **DEEPPAVLOV**

Technical Open-source

RASA
DEEPPAVLOV
MindMeld
botpress
spaCy
snips

Big Cloud Frameworks

Watson Assistant
Dialogflow
Amazon Lex
Azure
Meta
Nuance Mix
ORACLE Digital Assistant
GENESYS

Chatbot Development Frameworks

Quiq **Ultimate.** **eva** **COGNIGY inbenta** **SEVISBOT** **boost.ai** **creativevirtual** **VERINT** **The Bot Platform** **AMELIA** **haptik** **hyro** **OneReach.ai** **senseforth.ai** **knowbl** **[24]7.ai** **ada** **DATAKNOWL** **Botkit** **ARTIFICIAL SOLUTIONS** **sprinklr** **webio** **Five9** **Smarty.ai**
DRUID **technisys** **Voiceflow** **SPITCH** **ConvyAI** **Omilia** **replicant** **feedyou** **yellow.ai** **eGain** **OpenDialog** **kore.ai** **VONAGE LAIYE** **Openstream.ai** **avaamo** **aivo** **Smarterk** **AISERA** **sinch** **LIVEPERSON** **servicenow** **ubitec** **Smartly.ai**

NLU Tools

HumanFirst **Snorkel** **scale** **prodigy** **QBox** **dashbot**

NLU/NLG Design

HumanFirst

Dialog Design

Voiceflow

End-To-End Testing

Bespoken **CYARA**

Big Cloud Automatic Speech Recognition / ASR / STT

IBM Watson Speech to Text **Whisper** **Azure Speech to text** **Meta AI** **Google Cloud Cloud Text-to-Speech** **amazon transcribe** **NVIDIA RIVA** **NUANCE Nuance Recognizer**

Focused Automatic Speech Recognition / ASR / STT

descript **SAIGEN** **syml.ai** **Speechmatics** **KALDI** **Neural Space** **AssemblyAI** **RESPEECHER** **Speechly**

Speech Synthesis / TTS

NUANCE Text-to-Speech (TTS) **descript** **nvidia** **IBM Watson Text to Speech** **aws Amazon Polly** **RESEMBLE.AI** **Meta AI** **Azure Text to speech** **Google Cloud Cloud Text-to-Speech**

Voicebot Orchestration

avaamo **COGNIGY** **OneReach.ai** **boost.ai** **DEEPPAVLOV** **hyro** **VoiceAI Connect** **ada** **vicinity**

Focused Voicebot Development Frameworks

Gridspace **verbio** **SoundHound** **++AI action.ai** **uniphore** **replicant** **elerian ai** **cerence** **PolyAI** **Omilia**

Foundation LLM Models

OpenAI **AI21 labs** **Anthropic** **Meta AI** **Microsoft** **cohere** **GooseAI** **Google Cloud** **stability ai** **NVIDIA**

Open-Sourced LLM Models

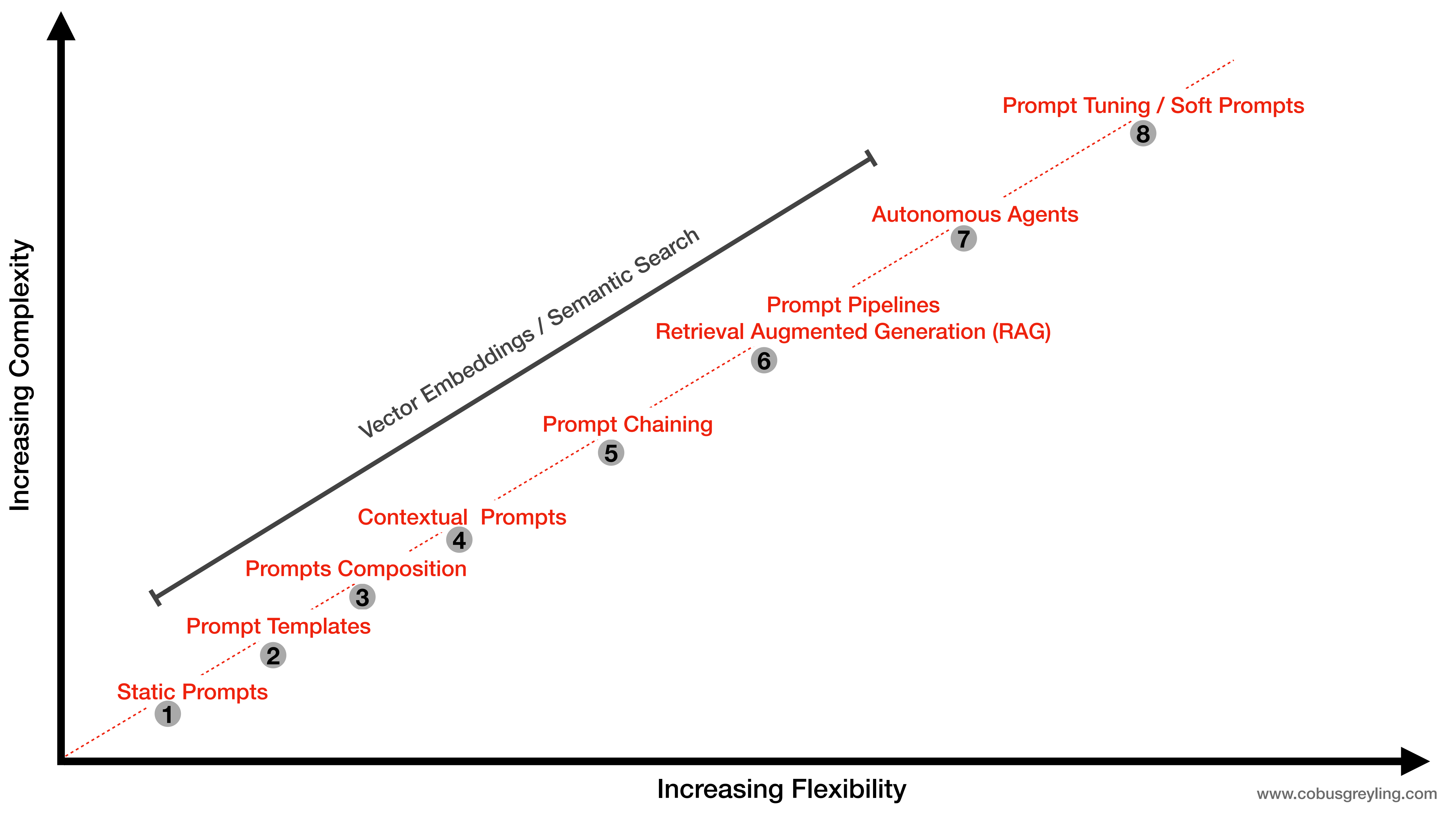
BLM **openai/whisper** **EleutherAI** **Meta AI**

Code Models

BigCode **OpenAI Codex** **GitHub Copilot**

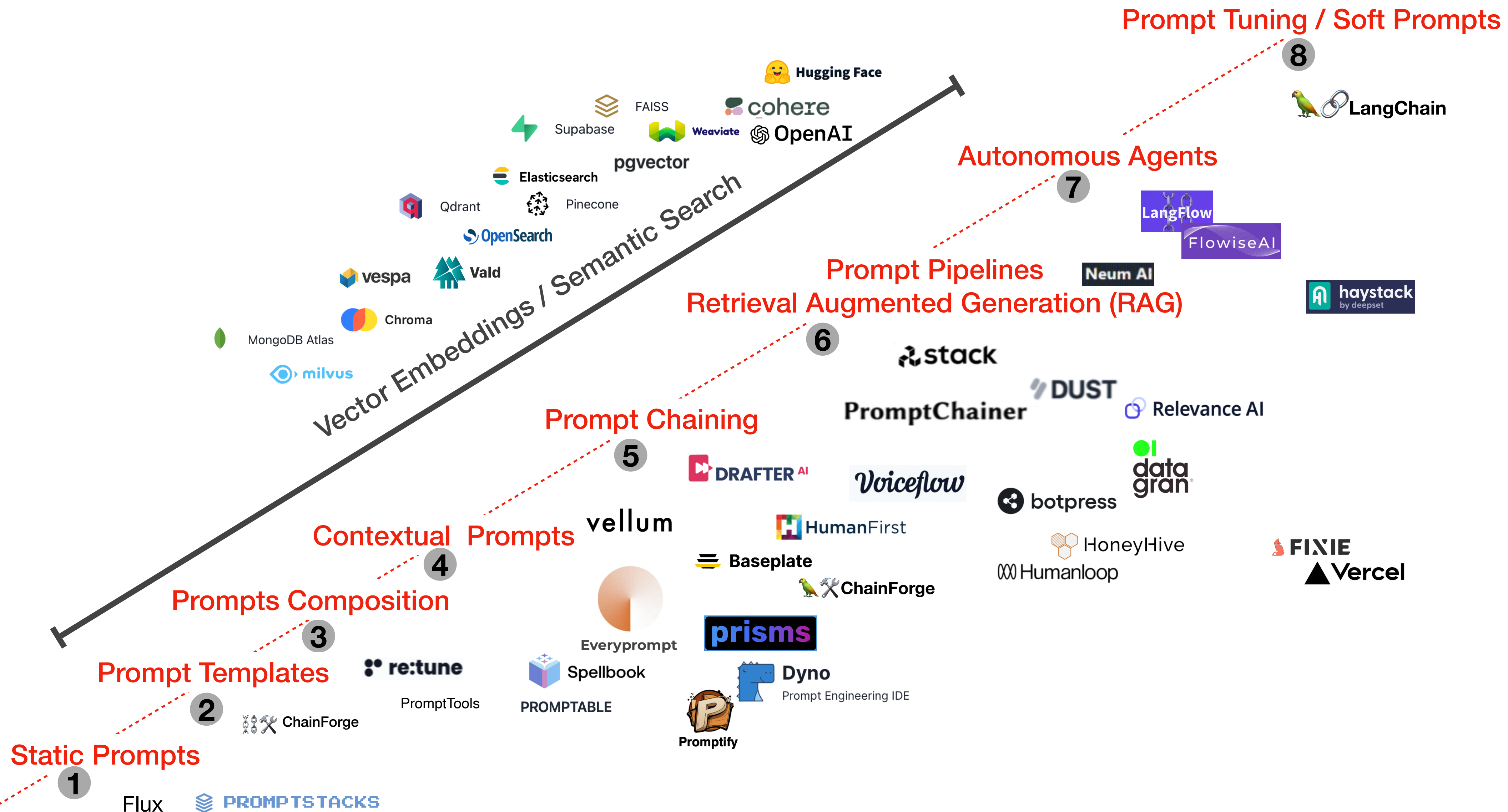
Model Hubs

Hugging Face **GitHub**

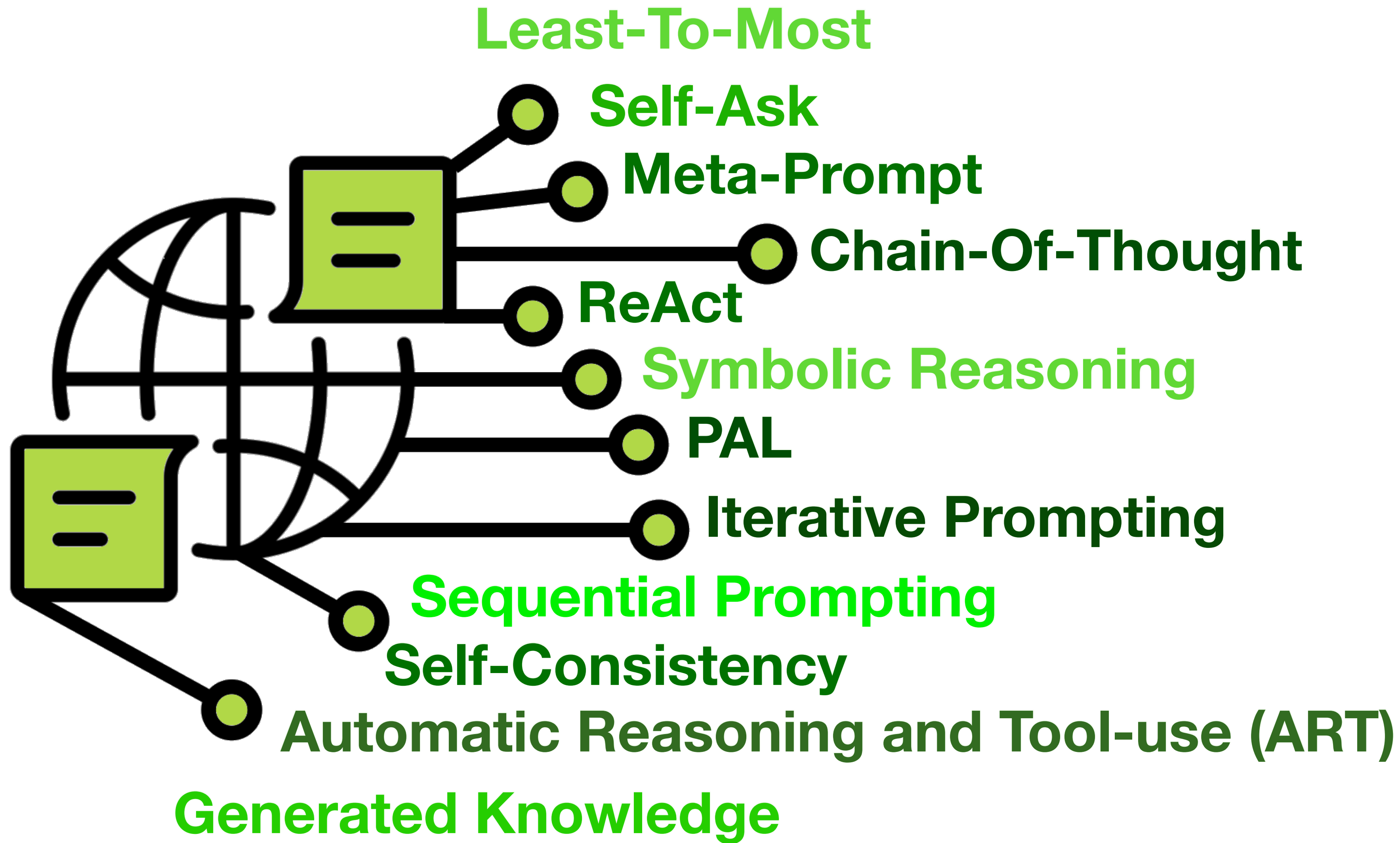


Increasing Complexity

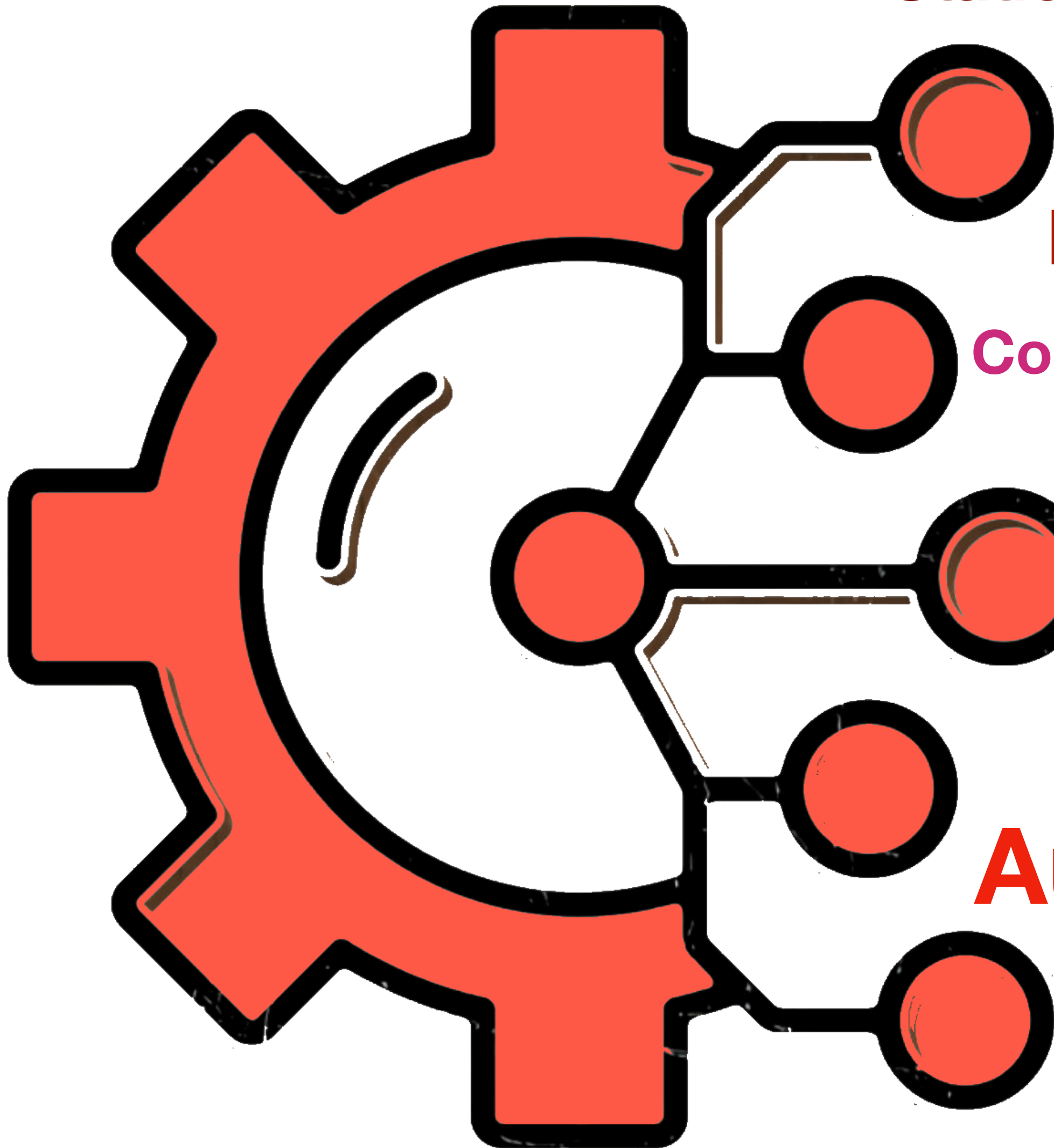
Increasing Flexibility



Prompt Engineering Techniques



Prompt Engineering



Static Prompts

Prompt Templates

Prompt

Contextual Prompts

Prompt Chaining

Prompt Pipelines

Retrieval Augmented Generations

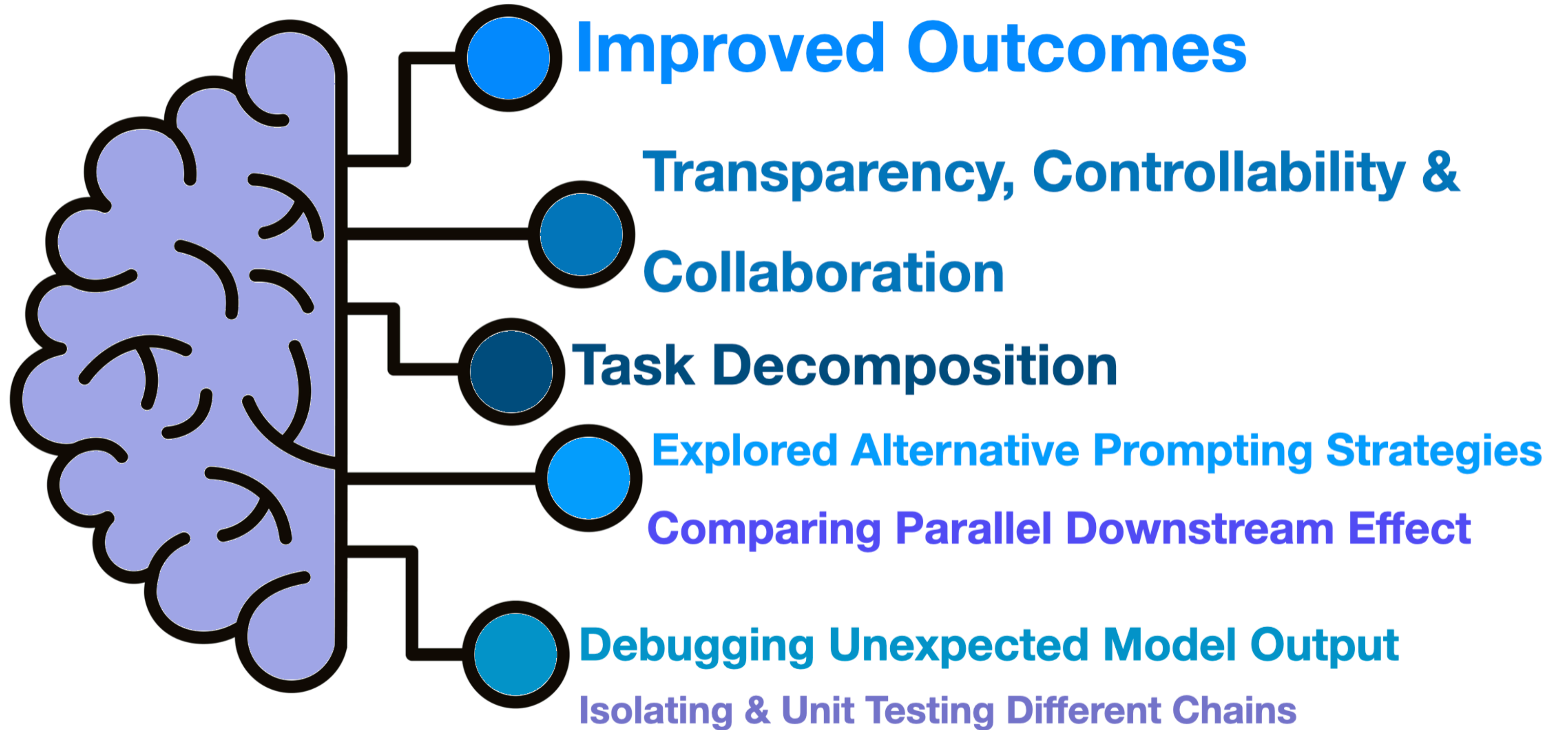
Autonomous Agents

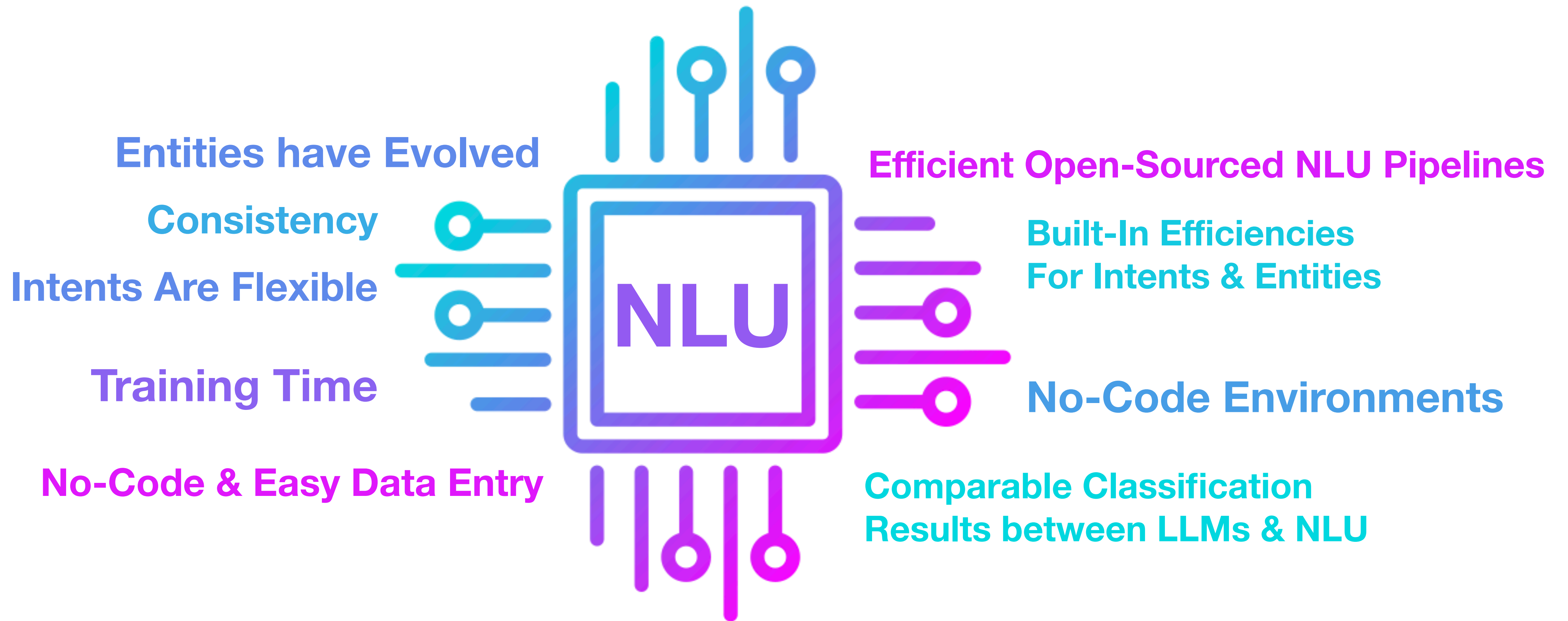
Prompt Tuning / Soft

Dialog State Management



Prompt Chaining





cobus@humanfirst.ai