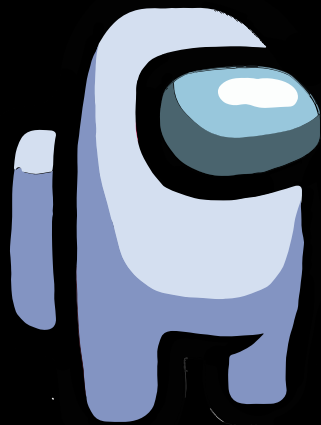




# On being a Good AI Coach





# Ron Dagdag

## R&D Engineering Manager



“Opinions expressed are my own.”



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### Award Categories

AI, Windows Development,  
Internet of Things, Mixed Reality

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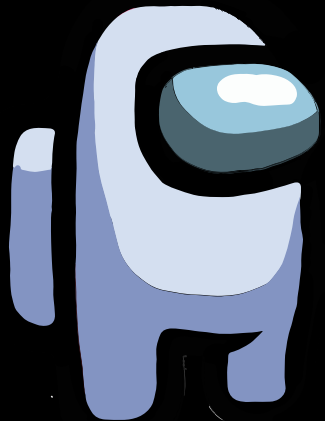
Quest



**COZYROC**



What are qualities of  
a Good Coach?



# Qualities of a great sports coach



1. Understands the Sport and Leads by Example
2. Sponge for Knowledge / Profound Thinker / Visionary
3. Shares the Knowledge / Educates Others
4. Highly Energized and a Motivator
5. Knows the Athlete, Values and Respects that Relationship

# Qualities of a great sports coach



6. Is an Effective Communicator & Teacher
7. Is a Good Listener
8. Is Disciplined, Strong in Character and Integrity
9. Leads by Example with very High Attitude to Hard Work
10. Displays Commitment and Clear Passion for the Sport.

# AMONG US

## AGENDA:

- What AI AGENTS?
- What are multi Agents?
- Key Elements of Agents
- Agent Coaching Guide





# Artificial Intelligence

## Machine Learning

### Deep Learning

#### Generative AI



## Artificial Intelligence

Seeks to create intelligent machines that can replicate/exceed human intelligence



## Machine Learning

subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions



## Deep Learning

a machine learning technique in which layers of neural networks are used to process data and make decisions



## Generative AI

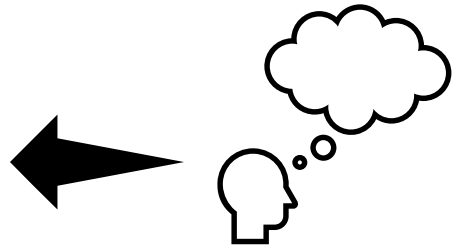
Create new written, visual, and auditory content given prompts or existing data.

# CONCAT: A programming tool for constructing collaborative agents



This document is currently  
not available here.

Mong Chin Chan  
Chiu Wo Choi  
Ron Lyle G. Dagdag  
Gene Dexter T. Yu

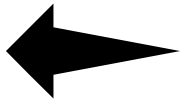


## Abstract/Summary

The field of artificial intelligence, particularly on intelligent agents, is one of the busiest these past decades. These agents can greatly simplify the normal, day-to-day tasks of humans by performing these tasks themselves without human intervention. However, the construction of agents requires an understanding of advanced technologies such as knowledge representation, inferencing, and the like.

One of the most common responsibilities of any person is to convene meetings and to set appointments. However, these tasks can be very tedious and time-consuming because most often than not, meetings need to be cancelled or rescheduled for various reasons. In the corporate world where time is of the utmost importance, these seemingly menial jobs could waste a lot of precious resources.

**Date of Publication**  
1999



**Document Type**  
Bachelor's Thesis

**Degree Name**  
Bachelor of Science in Computer Science

[https://animorepository.dlsu.edu.ph/etd\\_bachelors/14206/](https://animorepository.dlsu.edu.ph/etd_bachelors/14206/)

# Data Pipeline Flow



# Generative AI App Flow



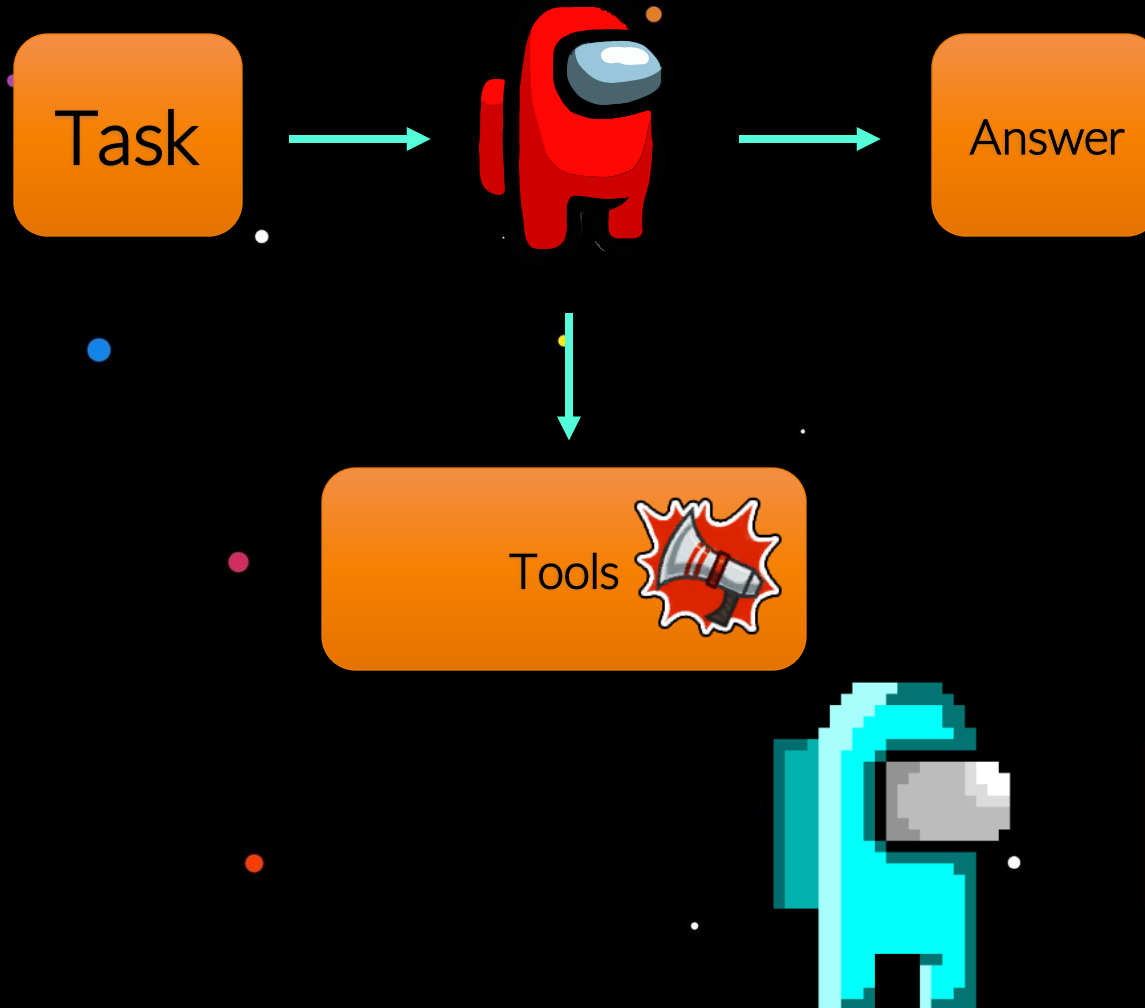
# Fuzzy inputs, transformation, outputs

	Traditional Software Development	AI Software Development
INPUTS	<ul style="list-style-type: none"><li>- Text with defined set (string)</li><li>- Numeric (int, float)</li></ul>	<p><b>Fuzzy inputs:</b> Open ended text</p> <ul style="list-style-type: none"><li>- Tabular data, markdown, text, math operation</li></ul>
TRANSFORMATION	<ul style="list-style-type: none"><li>- Math Calculations</li><li>- If, else, else if</li><li>- For/while loops</li></ul>	<p><b>Fuzzy transformations:</b></p> <ul style="list-style-type: none"><li>- Extract list of key words</li><li>- Rewrite as paragraph</li><li>- Answer a question</li><li>- Brainstorm new ideas</li><li>- Perform logic/math reasoning</li></ul>
OUTPUTS	<ul style="list-style-type: none"><li>- Text with defined set</li><li>- Numeric (int, float)</li></ul>	<p><b>Fuzzy output:</b> text</p> <ul style="list-style-type: none"><li>- Paragraph</li><li>- Number(s)</li><li>- JSON / Markdown</li></ul>
Notes	<ul style="list-style-type: none"><li>- Can be replicated</li></ul>	<ul style="list-style-type: none"><li>- Probabilistic: can be different every time</li></ul>

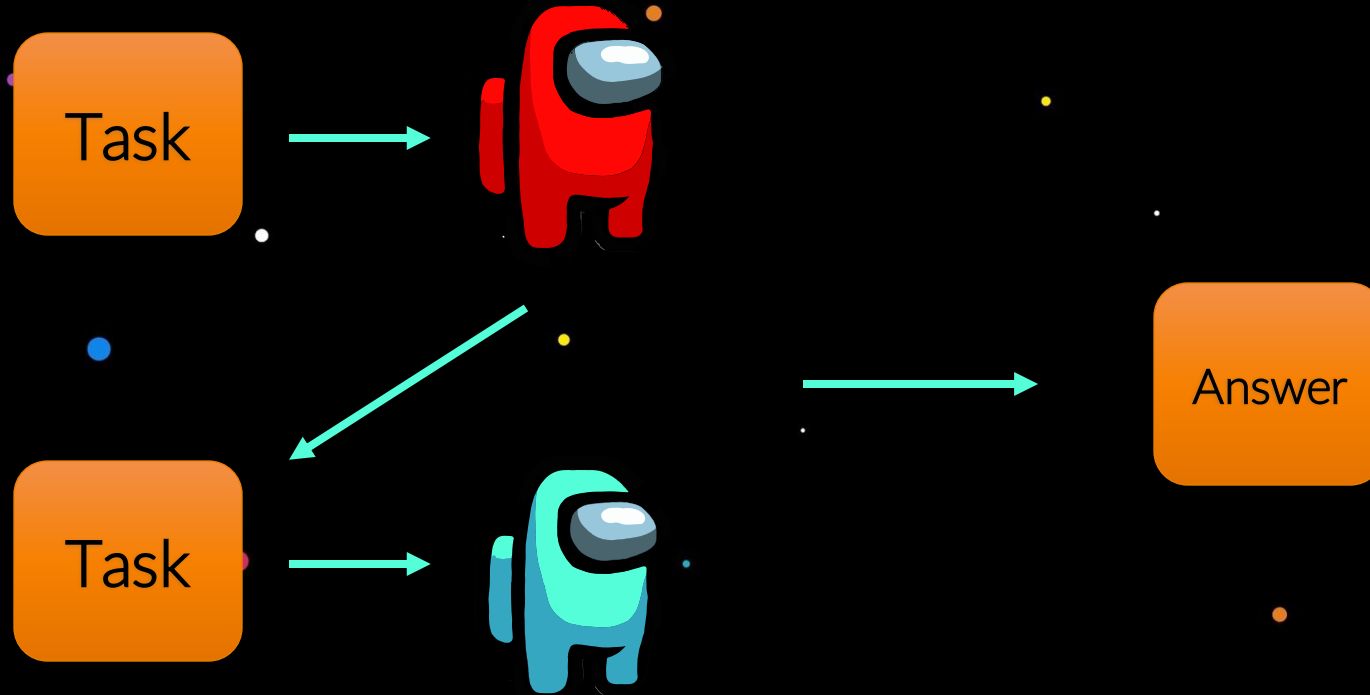
# Fuzzy inputs, transformation, outputs



# What are AI Agents?



# What are Multi AI Agents?





DEMO



# Six strategies for getting better results

Write clear instructions

- add details, adopt persona, use delimiters, step by step instructions, provide examples, specify desired output length

Provide reference text

- ask model to use reference text, answer with citations from reference text

Split complex tasks into simpler subtasks

- use intent classification for relevant instructions, summarize long documents

# Six strategies for getting better results

Give the model time to "think"

- work out its own solution before rushing to conclusion, use inner monologue

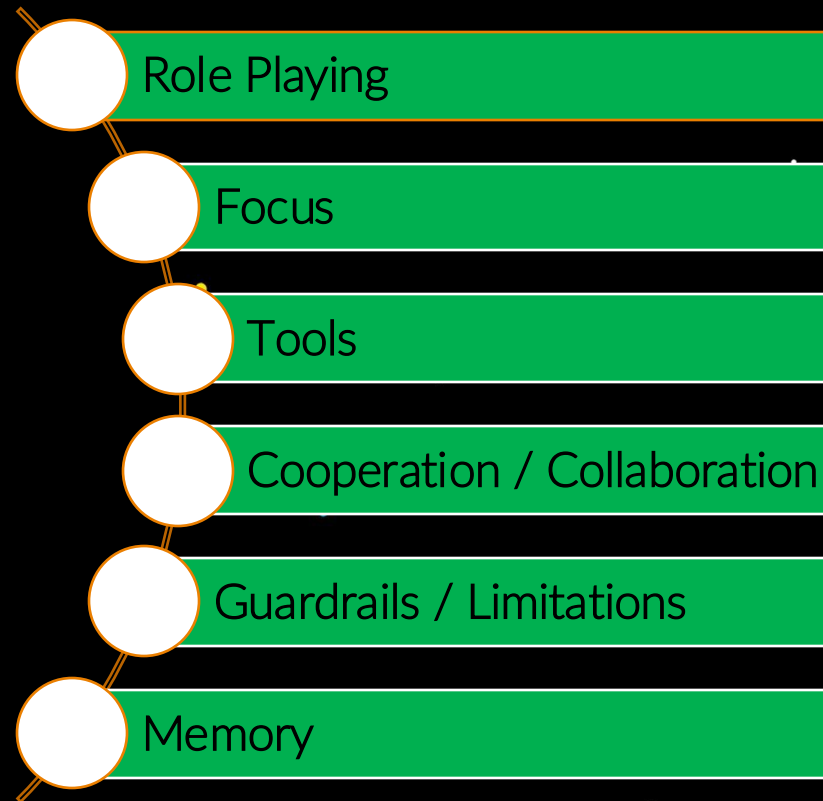
Use external tools

- use embeddings-based search, use code execution for calculations, access to specific functions

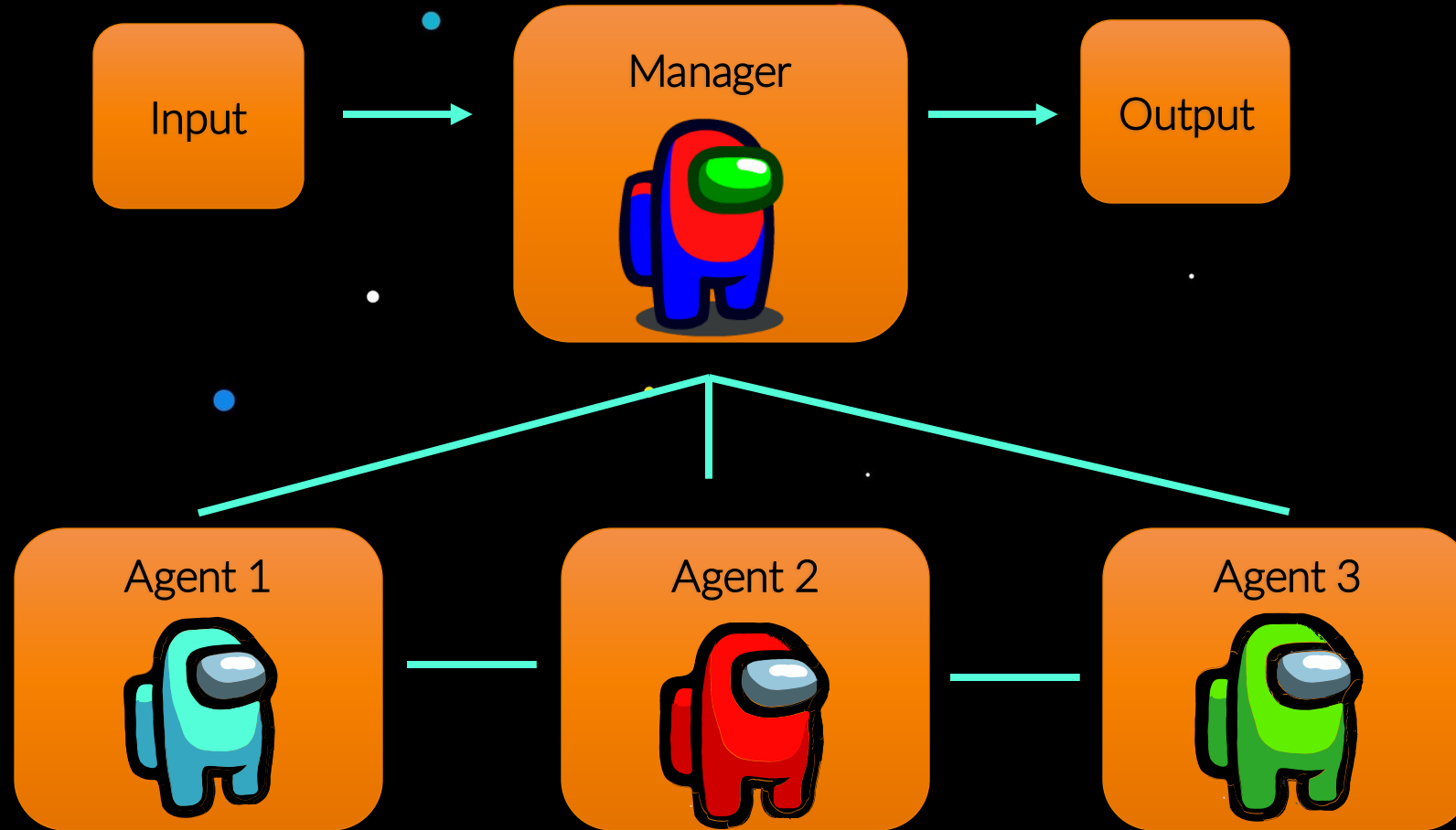
Test changes systematically

- evaluate model output with gold-standard answers,

# Key Elements of AI Agent



# Agentic Framework Flow



# Agent Coaching Guide

Manager



Goal?

Process?

What kind of individuals would I need to hire to get this done?



Which processes and tasks do I expect the individuals on my team to do?



Task

Task

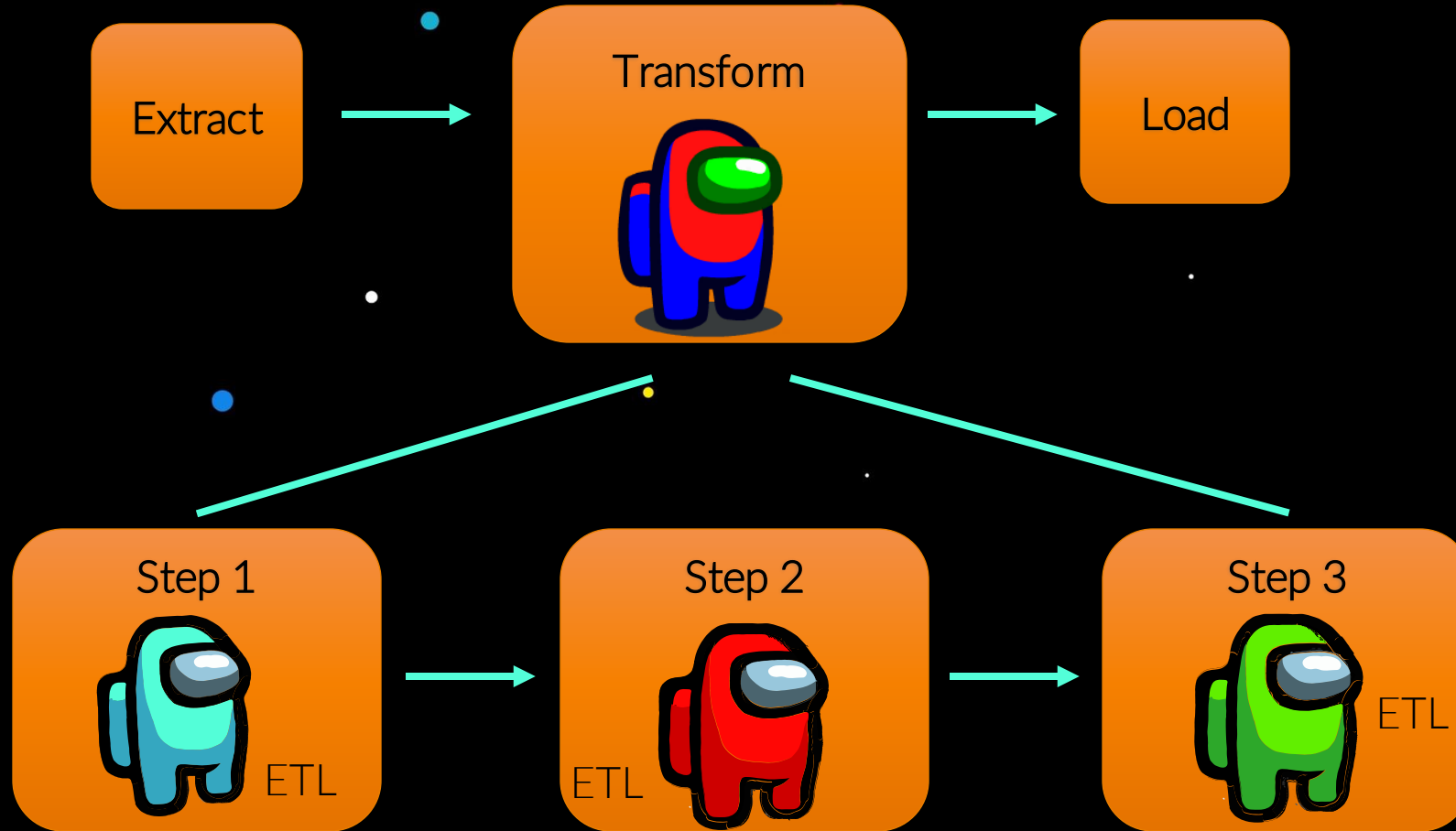
Task

Task

Task



# Data Pipeline Flow



DEMO





# Do not humanize AI Agents

Generative AI

is not:

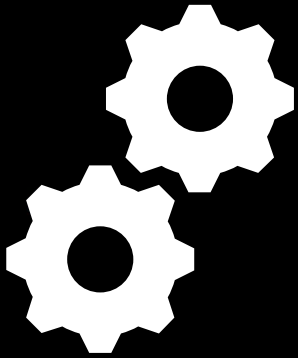
- Intelligent
- Deterministic
- Grounded

Generative AI

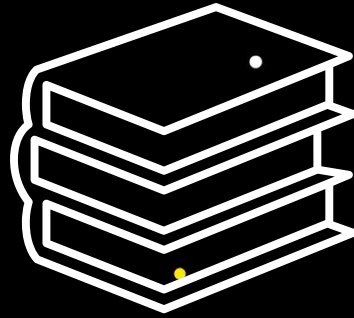
can not:

- Understand language or maths
- Understand manners or emotions
- Know facts that are not in its training dataset

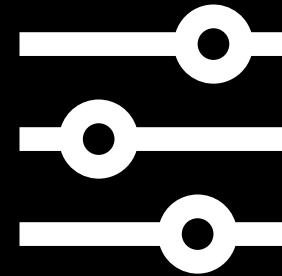
# Effective Coaching



- Effective prompt engineering



- Provide validated data sources
- Ask for citations



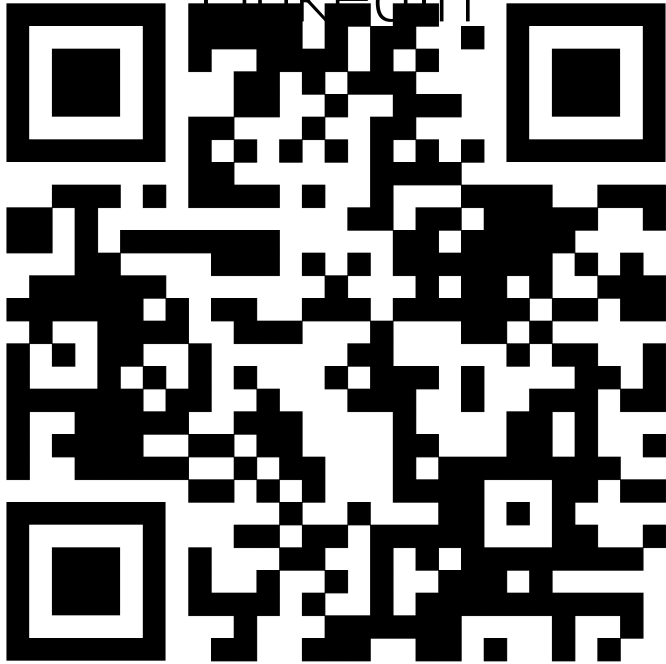
- Tweak parameters (temperature/max length)
- Content filtering

# Takeaway

	Traditional Software Development	AI Software Development
INPUTS	<ul style="list-style-type: none"><li>- Text with defined set (string)</li><li>- Numeric (int, float)</li></ul>	Fuzzy inputs: Open ended text <ul style="list-style-type: none"><li>- Tabular data, markdown, text, math operation</li></ul>
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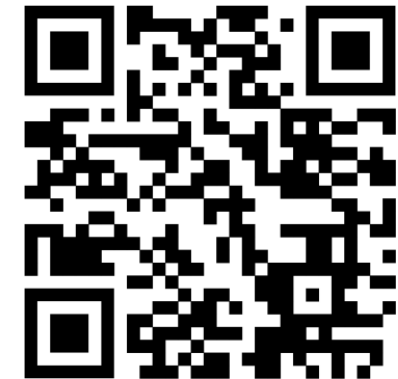
Join us monthly for more learning.

**Third Thursday of every Month right here at  
this same location.**

Meetup

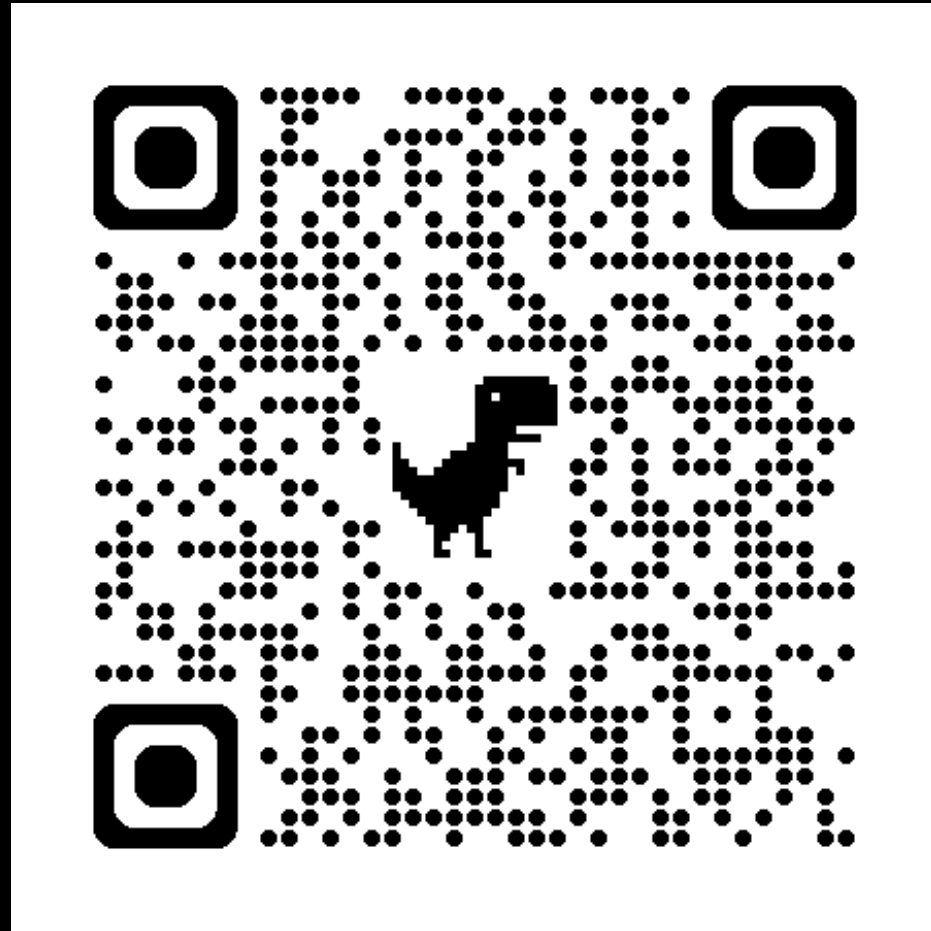


Google



## Relevant Links

1. <https://www.deeplearning.ai/short-courses/multi-ai-agent-systems-with-crewai/>
2. <https://www.deeplearning.ai/short-courses/ai-agentic-design-patterns-with-autogen/>
3. <https://platform.openai.com/docs/guides/prompt-engineering>



<https://github.com/rondagdag/coaching-ai-agents>

# RON DAGDAG



## Award Categories

AI, Windows Development,  
Internet of Things, Mixed Reality

R&D Engineering Manager at 7-Eleven

9th year Microsoft MVP awardee

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Linked In  
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Thanks for geeking out with me about AI Agents



Please provide feedback

THANKS

