Hacking the prompt: Using AI to analyze and visualize data

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Welcome.

Agenda

Introduction

Key Concepts

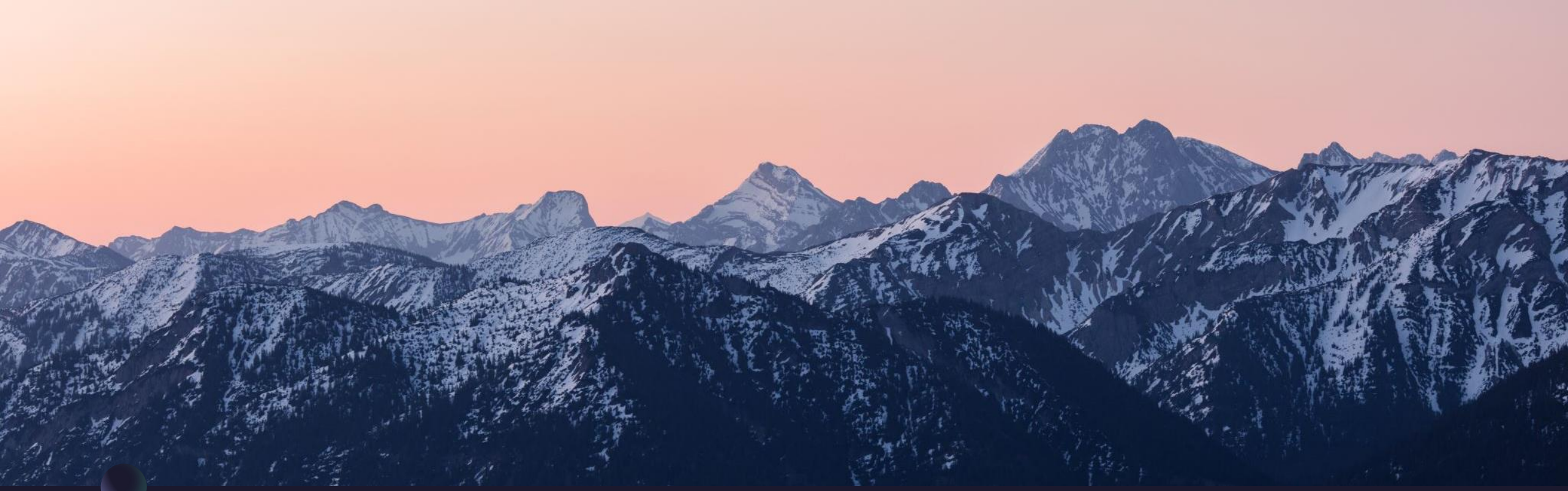
Activity

Prompt Engineering

Activities

Key Takeaways & Closing Reflection

Goodbye



Goals

- Demystify Artificial Intelligence
- Experiment and gain practical experience with AI
- Learn about prompt engineering
- (Hopefully) Leave less intimidated by AI

Grounding Values

Collaboration

Learning

Encouragement

Take it at your pace

What is Artificial Intelligence (AI)?

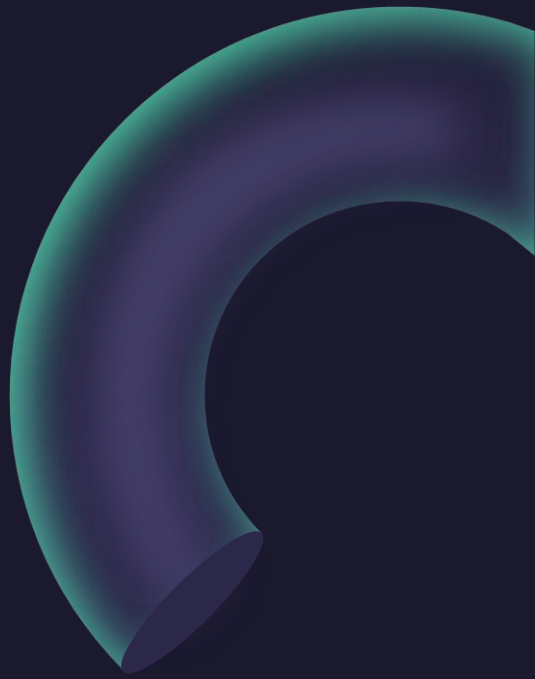
Poll

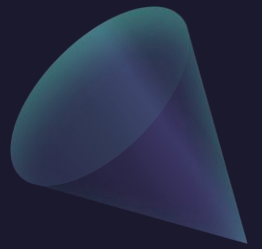
What is your experience with AI?

Diad introductions

Introduce yourselves

1. What is one thing you learned how to do in 2023?
2. How did you learn it?
3. Did you use any technology to support your learning?





4 Minute Timer

Key Concepts

Generative vs non-generative/traditional ai

Hallucinations

Prompt engineering

Activity

Let's see what ai can do for us

1. Teach me something I *already* know.
2. Teach me something I *don't already know*.

Triad Share

- What did you ask?
- What did the AI get right? What did it get wrong? Did it hallucinate?
- Did you respond to it? What did you ask?

6 Minute Timer

Reflection

- What did you learn?
- Any insights?

Prompt Engineering Skills

- What makes a good chat prompt?
- Task + Context + Clarifying Questions

Task only	"Give me instructions to analyze my data."
Task + Basic Context	"Give me instructions to analyze my data. I have data for each participant in an arts program including their race/ethnicity."
Task + Context + Clarifying Questions	Please show me step by step how to summarize my data in Excel using a pivot table. I have data for each participant in an arts program including their race/ethnicity and program outcomes. I would like to know the percentage of each race/ethnicity. Feel free to ask me any clarifying questions first."

Activity

Analyze datasets

Summarizing Data

Dataset 1 Common Object Types

Column Labels	Public Library	
Row Labels	Count	Percentage
Sculpture	68	38%
Mural	33	19%
Painting	26	15%
Print	16	9%
Textile art	6	3%
Glass	5	3%
Etching	4	2%
Installation	4	2%
Plaque	3	2%
Picture	3	2%
Drawing	3	2%
Garden	2	1%
Floor	2	1%
Ephemera	1	1%
Tile	1	1%
Photograph	1	1%
(blank)		0%
Grand Total	**178**	**100%**

Dataset 1 Prolific Artists

Row Labels	Count of ArtistName
Jordan, Emile	**30**
Sculpture	30
Unknown	**9**
Ephemera	1
Monument	1
Mural	1
Sculpture	4
Textile art	2
Greene, Jason	**9**
Painting	9
Middlebrook, Willie	**7**
Mural	1
Painting	1
Photograph	5
Abeles, Kim	**7**
Installation	1
Sculpture	6
Grand Total	**62**

Dataset 2 Community Resource Access by Age

COUNTA of Ac Accessed Community Resources			
Age	No	Yes	Grand Total
18-24	40.00%	60.00%	100.00%
25-34	15.38%	84.62%	100.00%
35-44	47.22%	52.78%	100.00%
45-54	53.06%	46.94%	100.00%
55-64	54.39%	45.61%	100.00%
65-74	31.58%	68.42%	100.00%
75+	37.50%	62.50%	100.00%
Grand Total	**44.50%**	**55.50%**	**100.00%**

15 Minute Timer

Group Sharing

- What was your initial prompt? Did it work?
- How did you adjust the prompt or what clarifying information did you provide?
- What did you learn?

Activity

Analyzing your own data or visualizing dataset #1

Diad activity

- **Explore and Visualize your Own Data**
  Think about 1-2 things you would like to know about your own data. Write down what questions you want to be able to answer using your data then craft your prompt based on what you want to know.

OR

- **Visualize the Practice Datasets**
  Using the summarized data from the previous activity or your own data, ask the ai for instructions on how to visualize the data in your software of choice.

30 Minute Timer

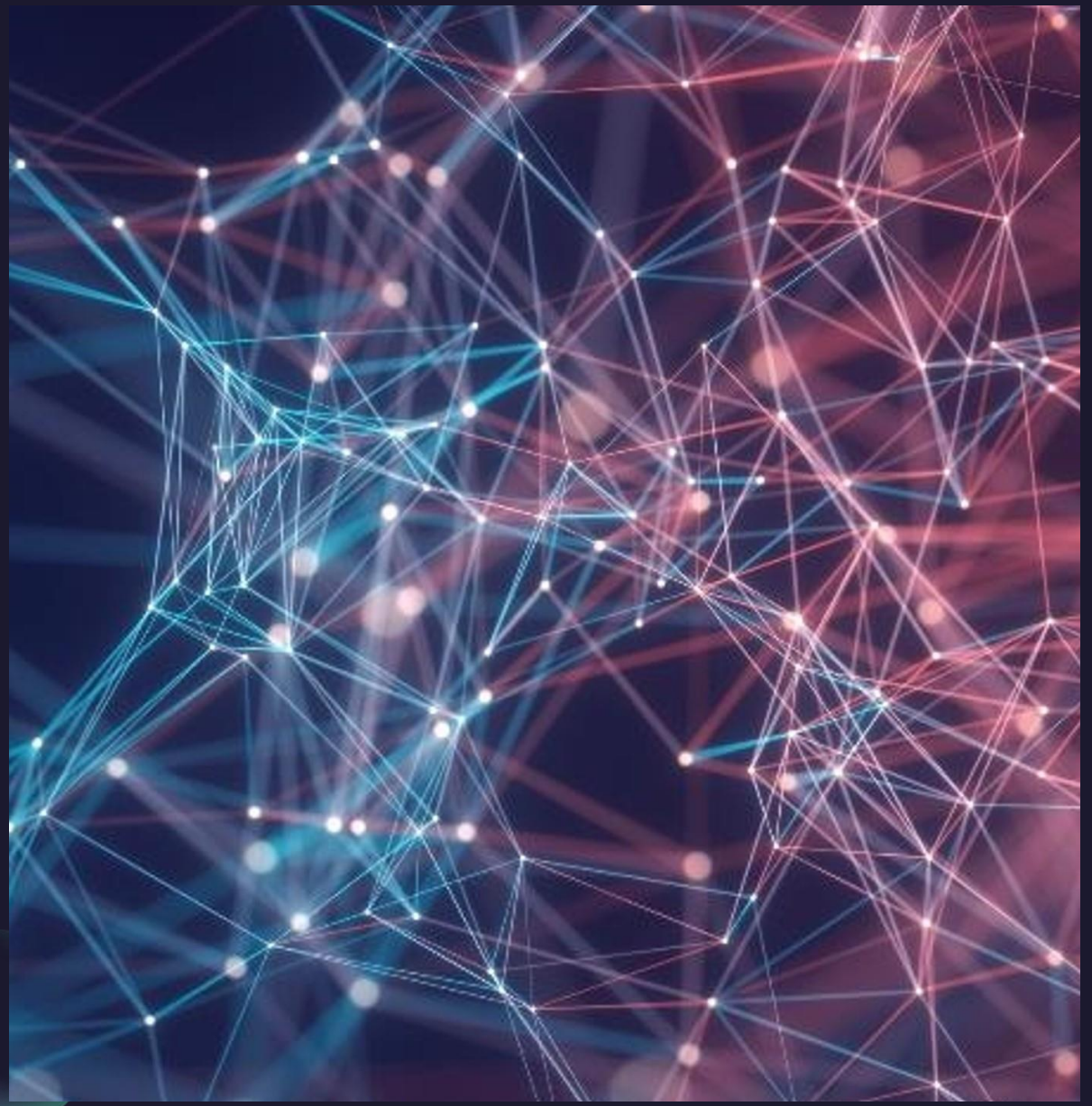
Group Sharing

- What was your initial prompt/approach? Did it work?
- How did you adjust the prompt or what clarifying information did you provide?
- What did you learn?

Key Takeaways & Closing Reflection

Learning new things take time and get perfected with practice

Keep experimenting

Use it with skepticism

Thank you