# Driving Al Literacy in Organizations

10-08-2023

**L** datacamp

## Hello!

I'm Adel Nehme, VP Media at DataCamp

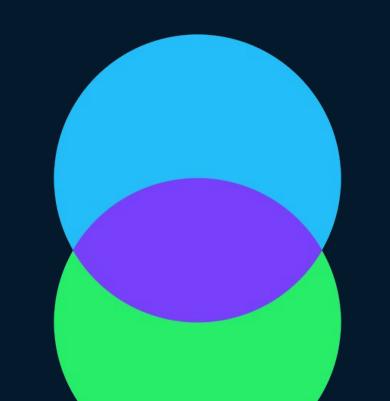


**Adel Nehme** 

VP Media @ DataCamp



in <u>adelnehme</u>



### Our Mission

Our mission is to democratize data & Al skills for everyone

Future-proof your business with DataCamp

#### Best in class learning



Give your employees access to market-leading training with DataCamp Learn

#### **Build work ready skills**



Apply your skills in a risk-free online coding environment with DataCamp Workspace

#### Grow your data team



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Trusted by more than 12 million learners and 3,500 data-driven companies

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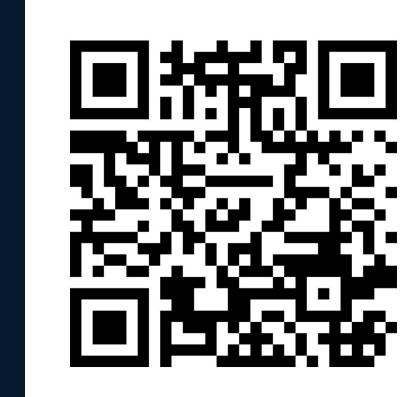
**BNP PARIBAS** 

## How would you describe your approach to Al literacy?

- We are actively upskilling/reskilling in AI or AI related topics
- 2 We are creating an upskilling program in Al or Al related topics
- We are not upskilling in AI or AI related topics

Go to menti.com and type in 8673 0166

Link



## Agenda

- 1 The Al revolution the next frontier in the data revolution
- 2 From data literacy to Al literacy (what, who, why)
- 3 Principles for upskilling in uncharted territory
- 4 Closing notes & Q&A

# The Al revolution — the next frontier in the data revolution

#### Major shifts in the past decades



The rise of the personal computer

1980s



The internet goes mainstream

2000s



The rise of the smartphone

2010s

**TECHNOLOGY** 

**ECOSYSTEM** 



**Productivity Applications** 



Gaming & Entertainment



Software Development



Social Platforms



Remote Work



Online Shopping



**Applications & Mobile Software** 

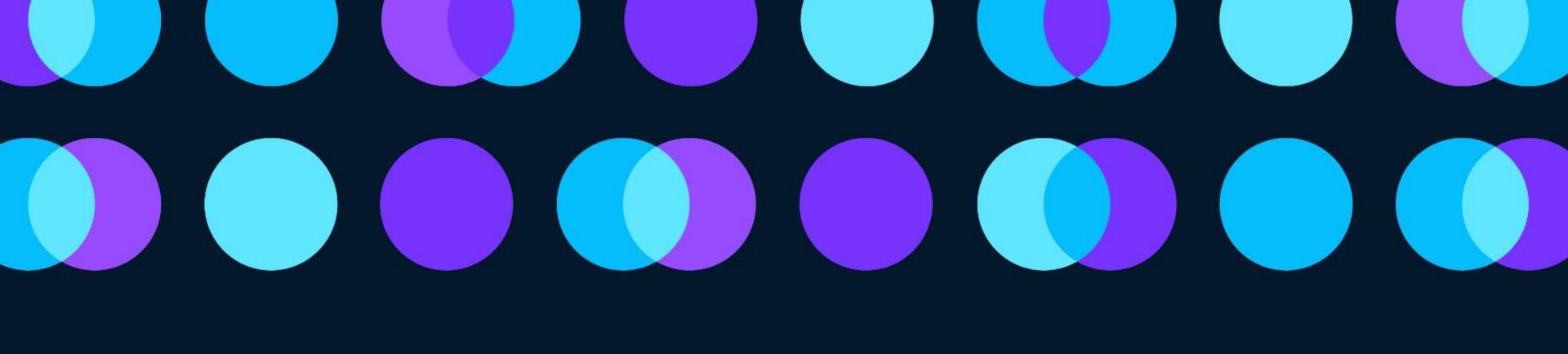


Ride Hailing

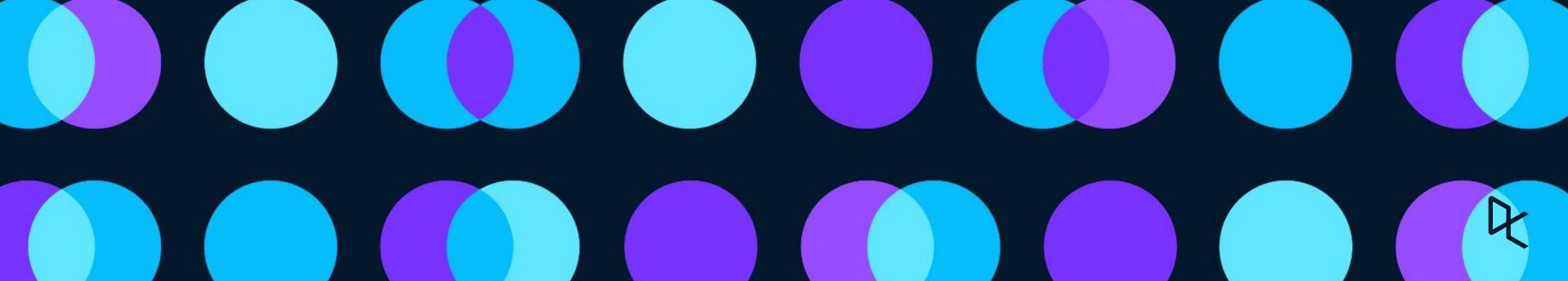


Instant Messaging





Every industry is now digitized





### A shift in the skills economy



#### The moment we find ourselves in



#### **Artificial Intelligence** goes mainstream

2020s

**ECOSYSTEM** 











Media









### A shift in the skills economy



# Al is rapidly disrupting every industry

Generative AI is and will be disrupting every organization across every industry

#### ChatGPT is the fastest growing app of all time

100 million users in two months.

#### **Mashable**

Nearly a Third of White-Collar Workers Have Tried ChatGPT or Other AI Programs, According to a New Survey

TIME

Experimental Evidence on the Productivity
Effects of Generative Artificial Intelligence

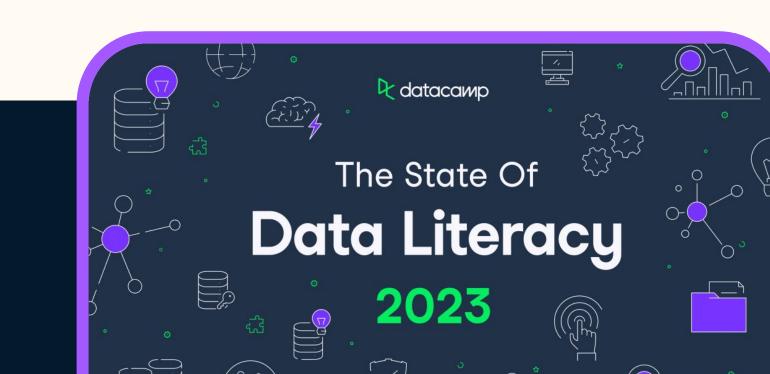


From data literacy to Al literacy (what, who, why)



#### Data Literacy

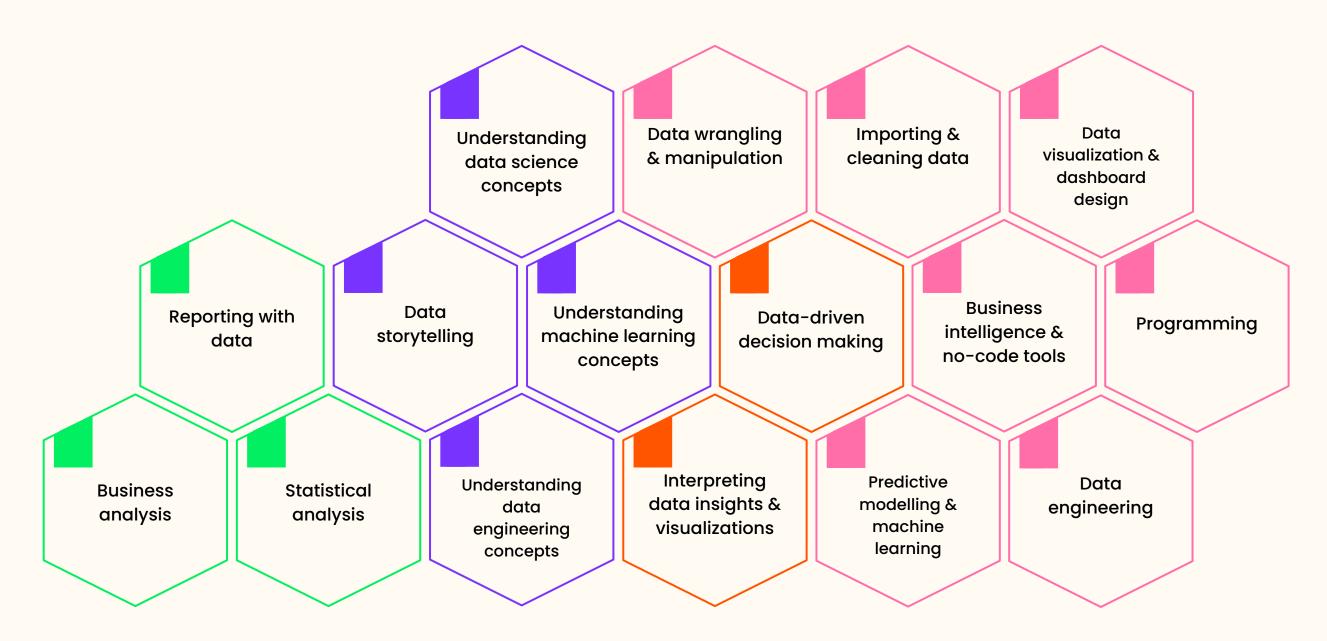
Data literacy is the ability to read, write, analyze, communicate, and reason with data. It's a skill that allows individuals and organizations to make better, data-driven decisions





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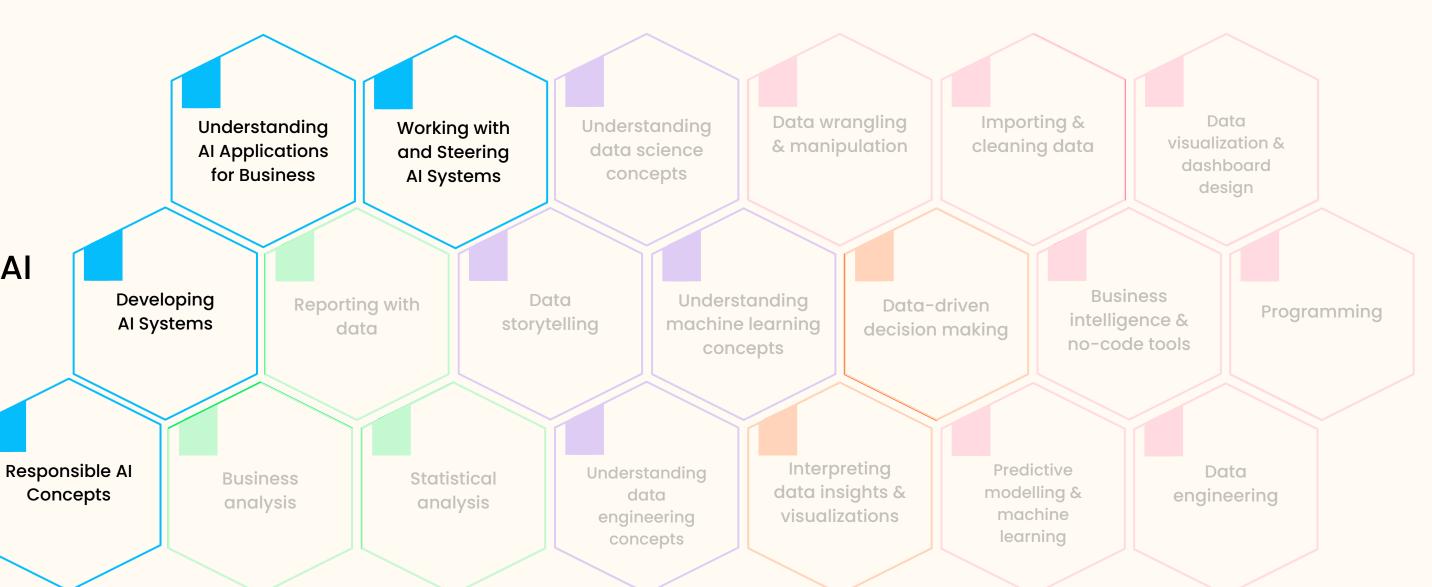






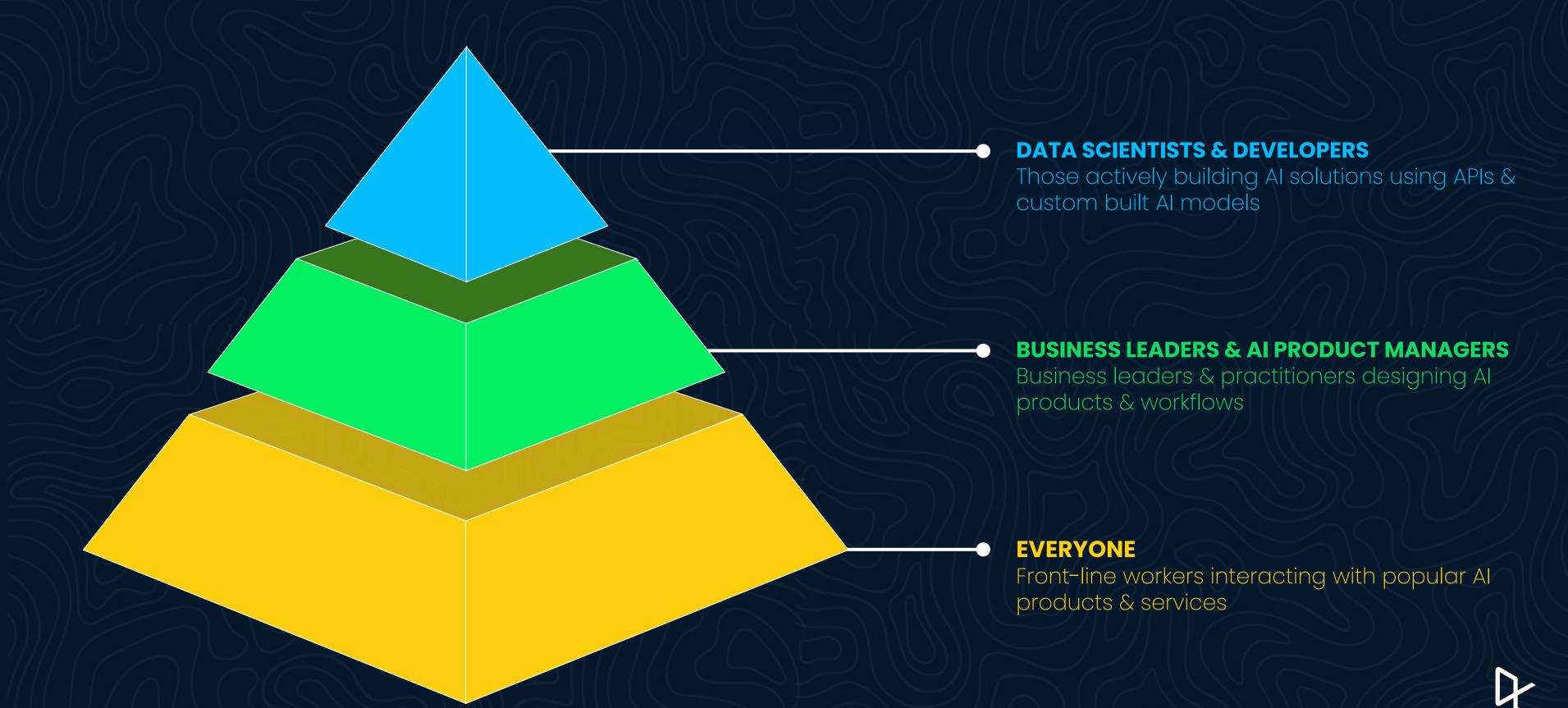
#### **Al Literacy**

The ability to effectively and responsibly utilize, understand, and guide Al systems.





#### Al literacy — A spectrum across the workforce



#### The transformational impact of Al

\$4.41 1/2

Up to \$4.4 trillion added to the global economy in productivity gains

**McKinsey** 

Of data science leaders anticipate significant impact in the near term

Domino Data Lab

55%

Al-assisted developers are 55% faster than their non-Al assisted counterparts

Santander



3

# Principles for upskilling in uncharted territory

#### The moment we find ourselves in



#### **Artificial Intelligence** goes mainstream

2020s

**ECOSYSTEM** 











Media









**UNCHARTED TERRITORY** 

# The many ways by which we will interact with Al systems are being established today



### Principles for upskilling in uncharted territory

#### Understand the use-cases

Always align learning goals with business objectives

#### Incentivize a learning culture

Create a culture of sharing on how AI is used across the organization

### Psychological safety

Be proactive about addressing fear of displacement

#### Put responsible use of AI at the center

Be proactive about addressing responsible use of Al

#### Principles for upskilling in uncharted territory

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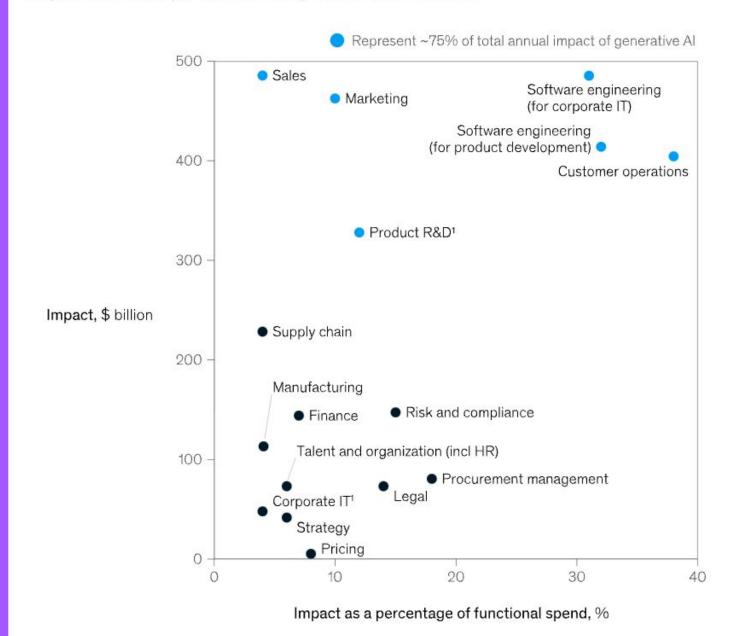
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**UNDERSTAND THE USE-CASES** 

# Understand the many ways generative Al can be used within your organization

Using generative AI in just a few functions could drive most of the technology's impact across potential corporate use cases.





#### A spectrum of use-cases across domains

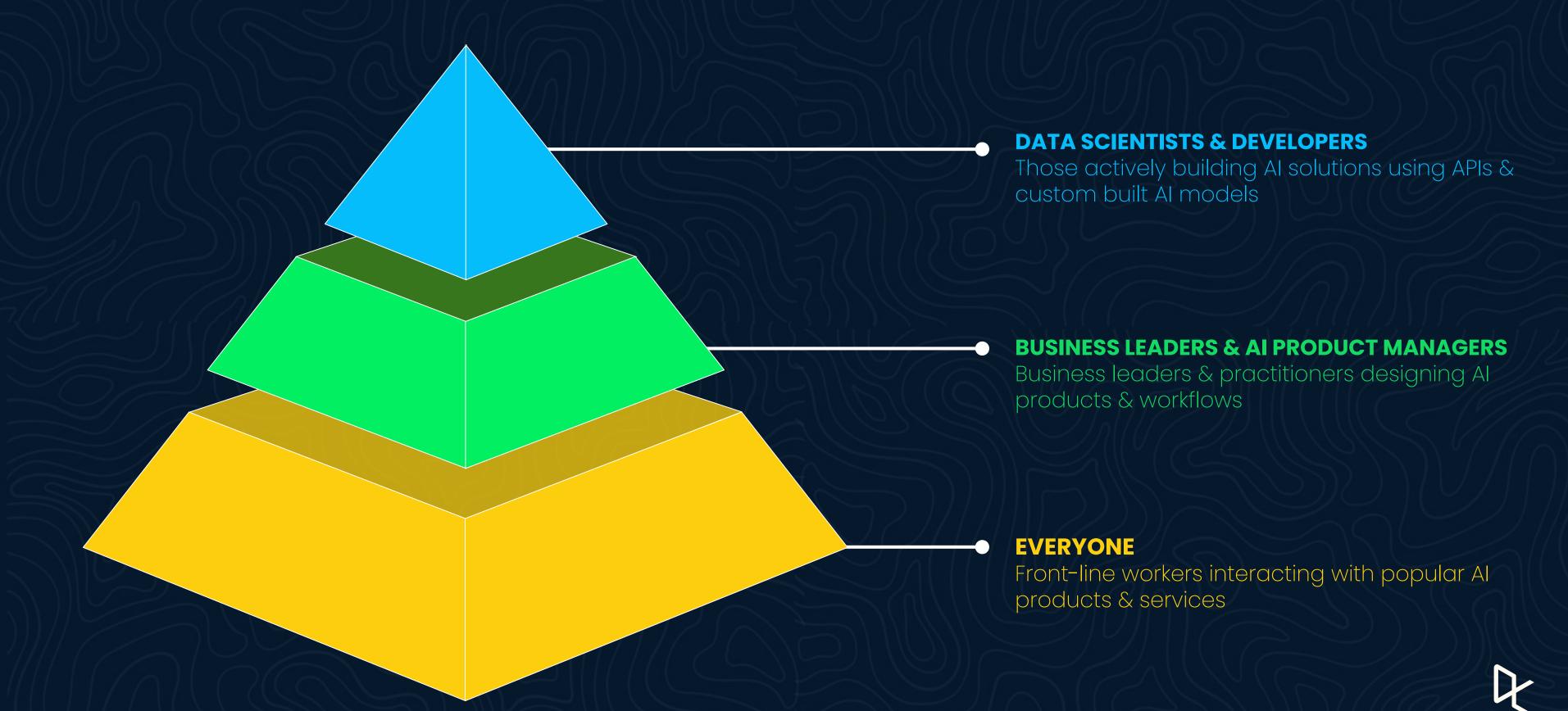
Modality	Application	Example use cases	
Text	Content writing	<ul> <li>Marketing: creating personalized emails and posts</li> <li>Talent: drafting interview questions, job descriptions</li> </ul>	
	Chatbots or assistants	Customer service: using chatbots to boost conversion on websites	
	Search	<ul> <li>Making more natural web search</li> <li>Corporate knowledge: enhancing internal search tools</li> </ul>	
	Analysis and synthesis	<ul> <li>Sales: analyzing customer interactions to extract insights</li> <li>Risk and legal: summarizing regulatory documents</li> </ul>	
Code	Code generation	IT: accelerating application development and quality with automatic code recommendations	
	Application prototype and design	IT: quickly generating user interface designs	
	Data set generation	Generating synthetic data sets to improve Al models quality	
Image	Stock image generator	Marketing and sales: generating unique media	
	Image editor	Marketing and sales: personalizing content quickly	
Audio	Text to voice generation	Trainings: creating educational voiceover	
	Sound creation	Entertainment: making custom sounds without copyright violations	
	Audio editing	Entertainment: editing podcast in post without having to rerecord	

3-D or other	3-D object generation	<ul> <li>Video games: writing scenes, characters</li> <li>Digital representation: creating interior-design mockups and virtual staging for architecture design</li> </ul>	
	Product design and discovery	<ul> <li>Manufacturing: optimizing material design</li> <li>Drug discovery: accelerating R&amp;D process</li> </ul>	
Video	Video creation	<ul> <li>Entertainment: generating short-form videos for TikTok</li> <li>Training or learning: creating video lessons or corporate presentations using Al avatars</li> </ul>	
	Video editing	<ul> <li>Entertainment: shortening videos for social media</li> <li>E-commerce: adding personalization to generic videos</li> <li>Entertainment: removing background images and background noise in post</li> </ul>	
	Voice translation and adjustments	<ul> <li>Video dubbing: translating into new languages using Al-generated or original-speaker voices</li> <li>Live translation: for corporate meetings, video conferencing</li> <li>Voice cloning: replicating actor voice or changing for studio effect such as aging</li> </ul>	
	Face swaps and adjustments	<ul> <li>Virtual effects: enabling rapid high-end aging; de-aging; cosmetic, wig, and prosthetic fixes</li> <li>Lip syncing or "visual" dubbing in post-production: editing footage to achieve release in multiple ratings or languages</li> <li>Face swapping and deep-fake visual effects</li> <li>Video conferencing: real-time gaze correction</li> </ul>	

<u>McKinsey</u>



#### A spectrum of use-cases across the workforce



#### A framework for understanding use-cases

USE CASE	TEAM	ROLE	SKILLS NEEDED
Marketing copy generation	Marketing Function	Marketing associate (Everyone)	<ol> <li>Principles for effective prompting</li> <li>Responsible AI knowledge</li> <li>Ability to steer &amp; edit model outputs</li> </ol>
Contract generation	Legal Function	Paralegals / Commercial Counsel (Everyone)	<ol> <li>Principles for effective prompting for law use-cases</li> <li>Responsible AI knowledge</li> <li>Ability to steer &amp; edit model outputs</li> <li>Strong human in the loop process development</li> </ol>
Text Summarization Feature in Consumer Facing Application	Product Team	Product Manager	<ol> <li>Principles for effective prompting for text summarization use-case</li> <li>Responsible AI Mastery</li> <li>Understanding of the limitations of large language models</li> <li>Effectively evaluate tradeoffs between OSS &amp; proprietary models</li> <li>Ability to work with AI Developers</li> </ol>
Text Summarization Feature in Consumer Facing Application	Product Team	Product Manager	<ol> <li>Principles for effective prompting for text summarization use-case</li> <li>Responsible Al Mastery</li> <li>Understanding of the limitations of large language models</li> <li>Effectively evaluate tradeoffs between</li> </ol>

#### Principles for upskilling in uncharted territory

#### Understand the use-cases

Always align learning goals with business objectives

#### Incentivize a learning culture

Create a culture of sharing on how AI is used across the organization

### Psychological safety

Be proactive about addressing fear of displacement

#### Put responsible use of AI at the center

Be proactive about addressing responsible use of Al

**PSYCHOLOGICAL SAFETY** 

# Be proactive about addressing the elephant in the room

#### Fear of job displacement

#### CNBC|SurveyMonkey Workforce Survey May 2023



#### Key findings:

- A quarter of workers (24%) are worried AI will make their job obsolete, with workers of color, younger workers, and lower-salaried workers more concerned
- By industry, about half of workers in Advertising & Marketing (51%) and Business
   Support and Logistics (46%) are worried AI will soon take their job twice the
   level of concern overall



## 3 tactical steps for building a psychologically safe culture for Al learning today



Engage middle managers to discuss the opportunities of Al



Be transparent about how your company intends to use Al



Create forums to share experiences

#### Principles for upskilling in uncharted territory

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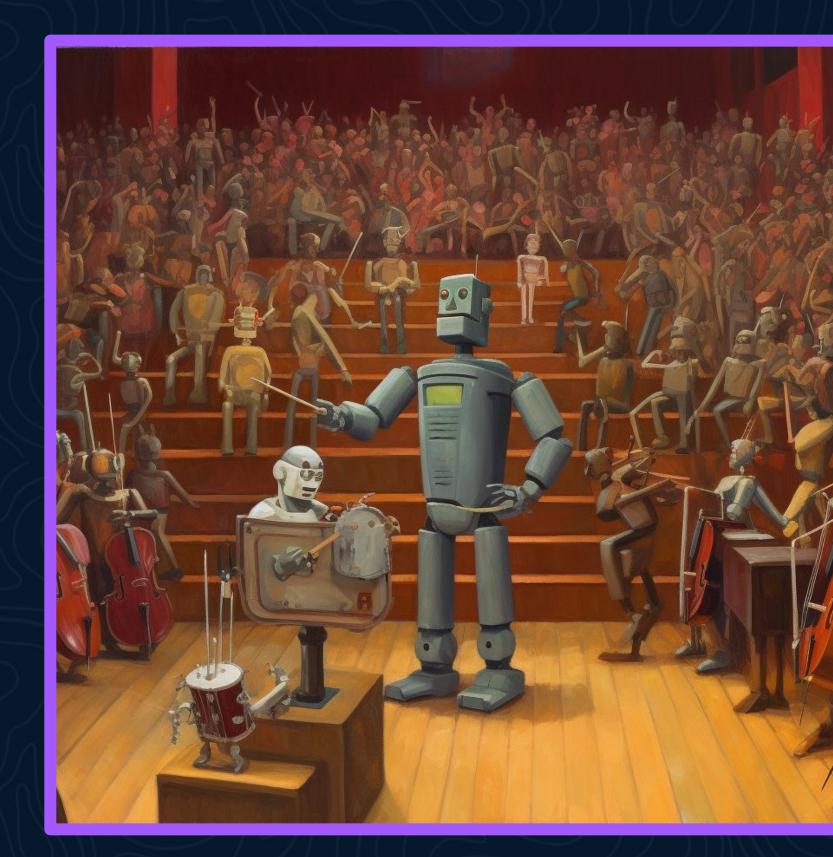
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**INCENTIVIZE A LEARNING CULTURE** 

# Build a community around I and increase transparency



#### A culture of sharing on how AI is used across the organization

## **Blended learning**

## Communities of practice

Online active learning

Communities learning together

Industry resources (podcasts, webinars, talks, etc..)

Champion network and evangelists

Instructor-led learning and blended learning

Creating connections between experts and learners

#### Principles for upskilling in uncharted territory

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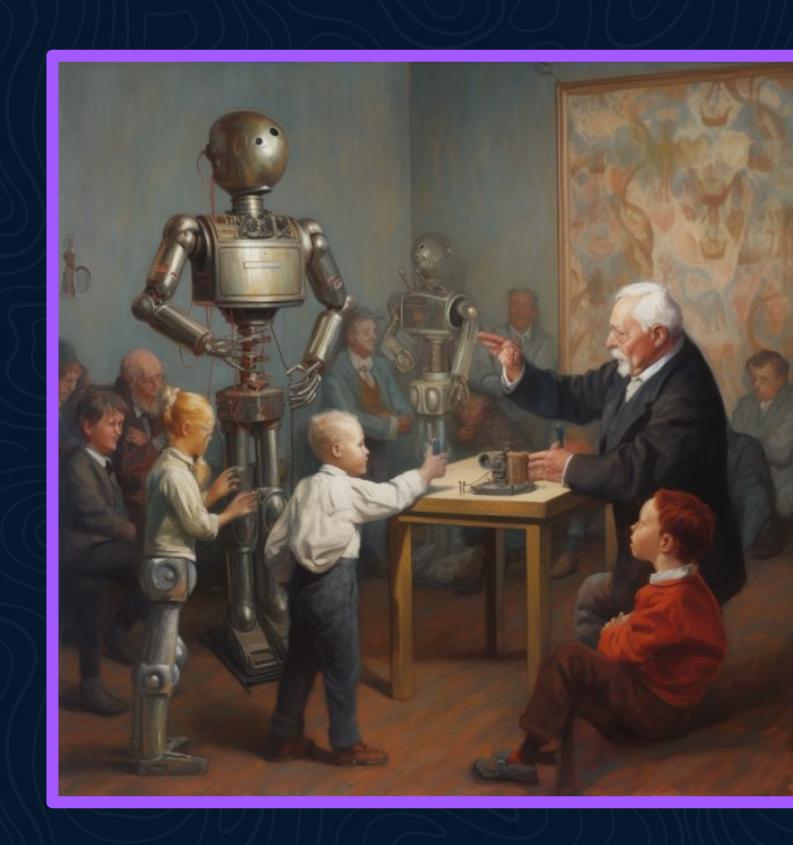
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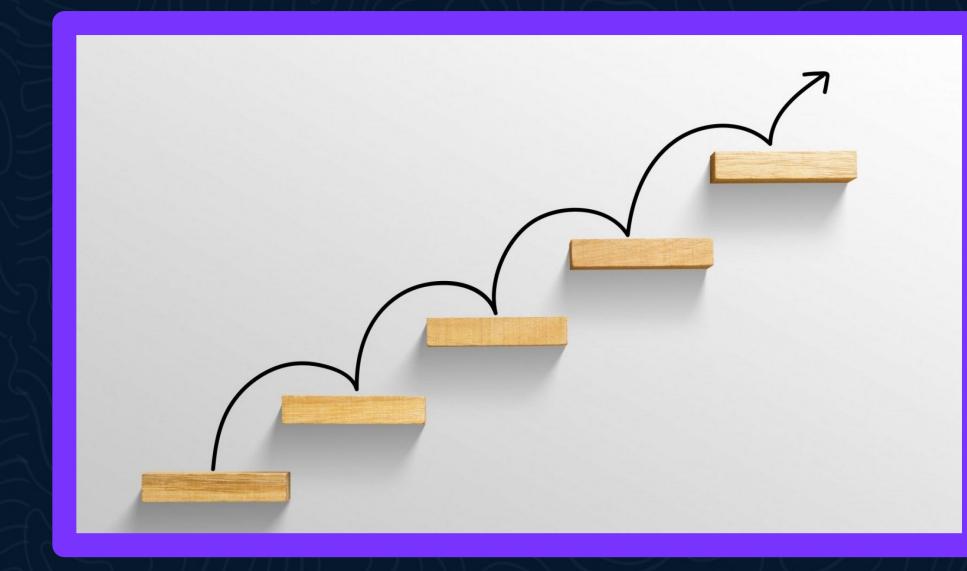
**RESPONSIBLE USE OF AI IS PARAMOUNT** 

## Al ethics & responsible use of Al is crucial for effective use of Al

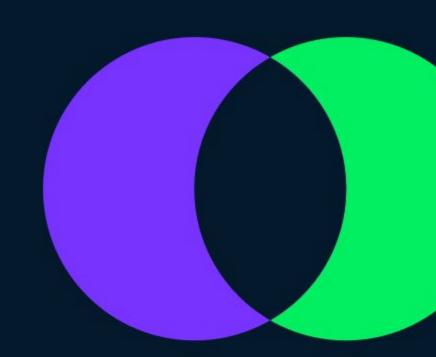


# The importance of starting small and iterating

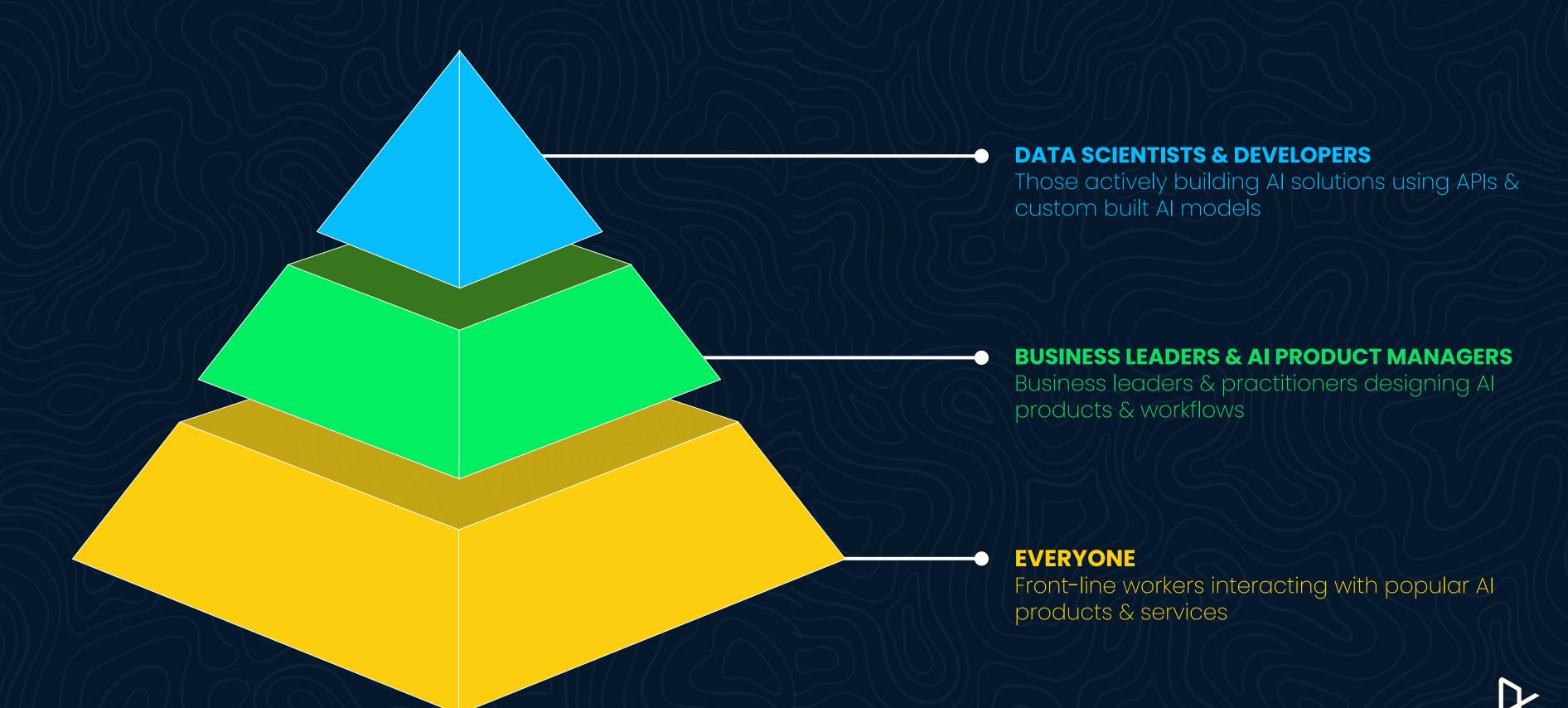
- > YOU CAN LEARN FROM YOUR MISTAKES
- > YOU CAN MOVE THE NEEDLE AT MINIMAL COSTS
- YOU CAN CREATE INTERNAL MOMENTUM







## Al skills— For every learner



### Al skills — For every learner

Al Fundamentals

- → Understanding Al
- → Introduction to ChatGPT
- → Large Language Models Concepts
- → Generative Al Concepts
- → Al Ethics
- Al Business Fundamentals
  - → Understanding Al
  - → Introduction to ChatGPT
  - → Implementing Al Solutions in Business
  - → Generative AI for Business
  - → Large Language Models for Business
  - → Al Strategy
  - → Al Ethics

#### **Developing Al Applications**

- → Working with the OpenAl API
- → ChatGPT Prompt Engineering for Developers
- → Responsible Al Practices
- → Al Ethics
- → Developing AI Applications with the OpenAI API
- → Working with Hugging Face
- → Introduction to OpenAl API Embeddings
- → Developing LLM Applications with LangChain

**datacamp** 

Developing Large Language Models (LLMs)

- → Introduction to Deep Learning with PyTorch
- → Intermediate Deep Learning with PyTorch
- → Deep Learning for Text with PyTorch
- → Introduction to LLMs in Python

Deep Learning in Python

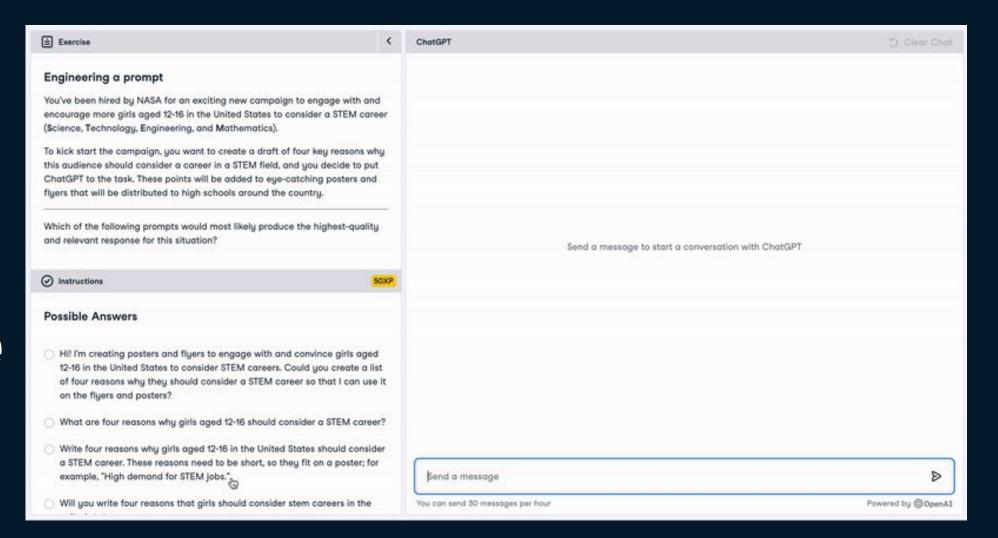
- → Introduction to Deep Learning with PyTorch
- → Intermediate Deep Learning with PyTorch
- → Deep Learning for Images with PyTorch
- → Deep Learning for Text with PyTorch

Other courses, assessments & projects

- → Al Essentials Assessment
- → Understanding Prompt Engineering
- → ChatGPT Prompt Engineering for Data Scientists
- → Explainable AI (XAI) Applications
- → Building a Chatbot with OpenAl Project
- → Prompt Engineering Project
- → Additional Al Projects

#### **INTRODUCTION TO CHATGPT**

## Learn how to use ChatGPT in your everyday work & life





#### **FOR EVERYONE**

#### **Al Fundamentals**

- → Understanding AI
- → Introduction to ChatGPT
- → Large Language Models Concepts
- → Generative AI Concepts
- → Al Ethics

#### **Track Description**

Explore the frontiers of Artificial Intelligence by understanding the core elements of AI, diving into large language models like ChatGPT, and exploring the secrets of generative AI. Equip yourself with the knowledge to unlock the evolving AI landscape.



#### FOR BUSINESS LEADERS & AI PRODUCT MANAGERS

#### **Al Business Fundamentals**

#### Live

- Understanding Al
- → Introduction to ChatGPT
- → Implementing AI Solutions in Business
- → Al Ethics

#### **Coming Soon**

- → Generative Al for Business
- → Large Language Models for Business
- → Al Strategy

Release date: September 2023

#### **Track Description**

Equip yourself with the essential knowledge and tools necessary to make an immediate impact in the fast-paced world of Al. Designed for professionals who want to harness the power of Artificial Intelligence, you'll understand how to utilize generative Al and large language models to extract business value from Al.



#### FOR DATA SCIENTISTS & DEVELOPERS

#### **Developing AI Applications**

- → Working with the OpenAl API Live
- → ChatGPT Prompt Engineering for Developers 2023
- → Responsible AI Practices 2023
- → AI Ethics Live
- → Developing AI Applications with the OpenAI API 2023
- → Working with Hugging Face 2023
- → Introduction to OpenAI API Embeddings 2023
- → Developing LLM Applications with LangChain 2023

Release date: End of 2023

#### **Track Description**

Create production-ready AI applications in Python to develop new AI features and products. You'll learn about the OpenAI API, write effective prompts, apply best practices for using AI responsibly, and develop applications underpinned by LLMs and other AI models.

#### Developing Large Language Models (LLMs)

- → Introduction to Deep Learning with PyTorch Live
- → Intermediate Deep Learning with PyTorch July
- → Deep Learning for Text with PyTorch September
- → Introduction to LLMs in Python 2023

Release date: End of 2023

#### **Track Description**

Build and customize deep learning models for large language model development. You'll build your PyTorch skills, process and handle text data for deep learning models, design deep learning models for different applications, and build and fine-tune LLMs for specific use cases.



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#### 190

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## Effective learning starts with assessment

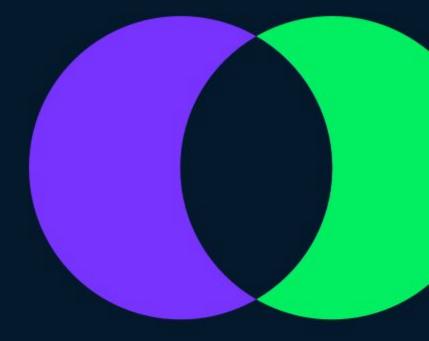
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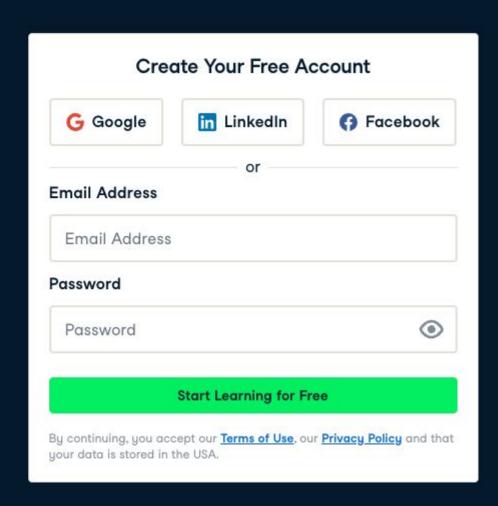


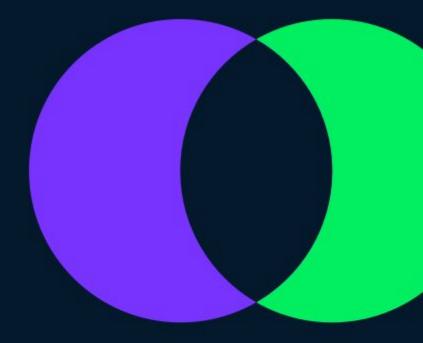
SKILL TRACK

#### **Al Fundamentals**

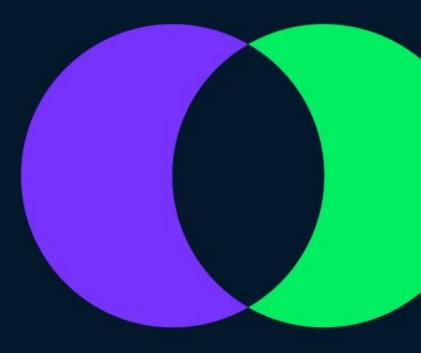
Conquer Artificial Intelligence (AI) frontier and realize the power of generative AI and complex large language models. Build a strong foundation with AI to propel you into the new AI-powered landscape. Throughout this track, you will gain actionable knowledge on popular AI topics like ChatGPT, large language models, generative AI, and more! Start learning today to be ready for the AI world of tomorrow.

Theory ⊙ 10 Hours ♀ 6 Courses





What questions can we answer for you?



## Thank you!