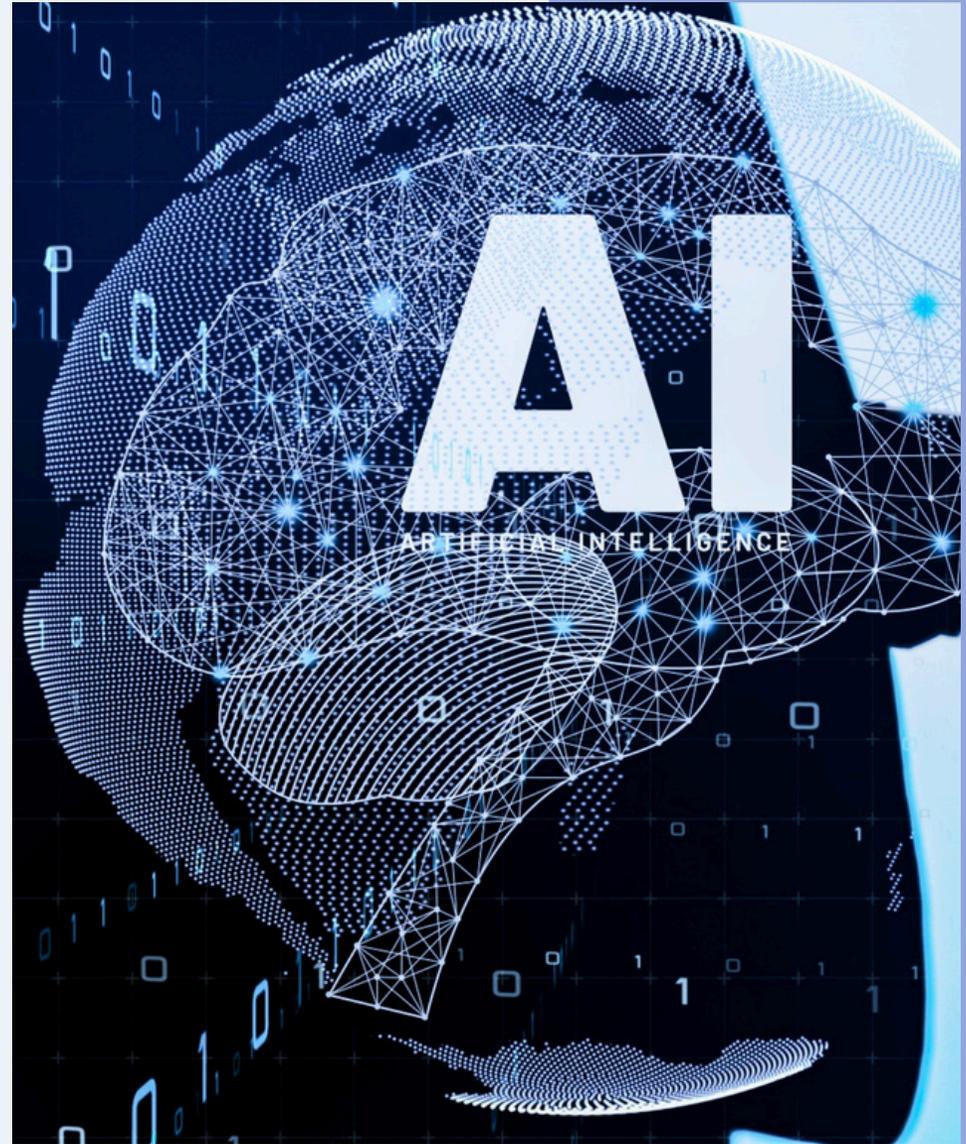




# AI Generalist Curriculum Overview



# Introduction to AI Generalists Curriculum



01

## Foundation of LLMs and RAG

Learn about Large Language Models and Evolution.

02

## Advanced Prompt Engineering

Master the core concepts of prompting.

03

## Diffusion Models

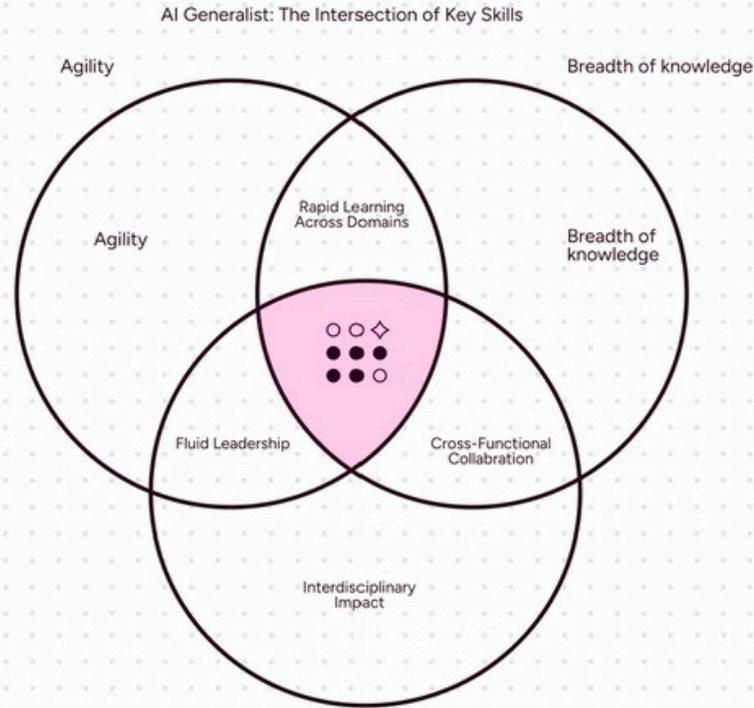
Understand image and video generation using AI

04

## Agentic Workflows and Automation

Understand to automate tasks and increase your productivity in day to day life.

# Overview of AI Generalists



AI generalists can...

**Build and Deploy  
Custom AI Solutions for  
10X Efficiency**

AI generalists can...

**Bridge the Gap Between  
Specialists and Enable  
Collaboration**

AI generalists can...

**Identify and Implement  
the Right AI Tools for  
the Job at Hand**

# Core Tools for AI Generalists



**Hugging Face Hub**  
Explore pre-trained AI models.



**Playground AI**  
Generate and manipulate text-based models in a visual environment.



**Google Gemini Deep Research**  
Explore advanced AI for multi-modal applications.



**Claude**  
Engage in dynamic, human-like conversational interactions.



**Notebook LM**  
Organize notes with AI-powered contextual assistance.



**Copilot**  
Generate and debug code for developer productivity.



**Surfer**  
Optimize content for SEO with AI insights.



**Humata**  
Summarize and analyze complex documents effectively.



**Rows**  
Automate data analysis in spreadsheets using AI.



**GPT-4 (OpenAI Playground)**  
Experiment with generating text responses.



**OpenAI API**  
Learn how AI interacts with real-world apps using APIs.



**Google AI Studio**  
Build and deploy AI for real-world tasks.



**Fireflies**  
Transcribe and summarize meetings with AI assistance.



**Vapi**  
Connect AI with APIs for real-time integrations.



**Gamma**  
Create presentations using AI for automation.



**Mistral AI**  
Explore decentralized and open-source AI models.



**Pitch**  
Design impactful presentations with AI-powered creativity.



**Frase**  
Generate content ideas tailored to specific audiences.



**Leonardo.Ai**  
Create AI-generated art and designs effortlessly.



**Eleven Labs**  
Produce lifelike speech using AI voice synthesis.



**ComfyUI**  
Build customizable AI workflows and pipelines.



**Luma AI**  
Transform real-world objects into 3D models.



**Hailo AI**  
Enhance video production with AI-generated content.



**Flux.1**  
Develop immersive content with AI for creative projects.



**MidJourney**  
Generate stunning visual art with AI-driven creativity.



**HeyGen**  
Generate realistic AI-powered videos with ease.



**Hugging Face**  
Explore pre-trained AI models for various applications.



**Runway**  
Edit videos and images seamlessly with AI tools.



**Stability.ai**  
Generate high-quality visuals using cutting-edge models.



**Civit.ai**  
Access free AI art and model-sharing tools.



**Kling AI**  
Optimize processes with AI-powered workflow solutions.



**n8n**  
Build visual workflows to automate tasks without coding.



**Relevance AI**  
Develop multi-agent systems that work together for advanced automation.



**Make.com**  
Build your complex AI automation & connect your applications

# AI Fundamentals and Core Concepts



## Deep Learning

01

A specialized branch of ML that uses multi-layered neural networks to model complex patterns—commonly used in image and speech recognition.

## Natural Language Processing (NLP)

02

Employing AI techniques to interpret and generate human language, enabling applications such as chatbots and virtual assistants to improve customer engagement and support.

## Neural Networks

03

Algorithms inspired by the human brain that consist of interconnected layers of nodes (neurons), used to detect patterns in data.

## Knowledge Representation & Reasoning

04

Model human-like logic in machines using ontologies, semantic networks, and inference rules.

## Expert Systems

05

Rule-based AI systems designed to simulate decision-making abilities of human experts.

## Fuzzy Logic

06

Handle reasoning with uncertain or imprecise information — useful in control systems and decision-making.

## AI in Robotics

07

Learn how AI integrates with sensors, actuators, and path-planning to enable intelligent robot behavior.

## AI vs Human Intelligence

08

Explore the limitations and capabilities of AI compared to human cognitive processes.



# Data Ethics in AI and Data Science

**01** **Bias**  
Implement bias audits to evaluate training datasets thoroughly.

**02** **Transparency**  
Ensure model decisions are explainable and understandable to users.

**03** **Privacy**  
Apply data anonymization techniques to protect user identities.

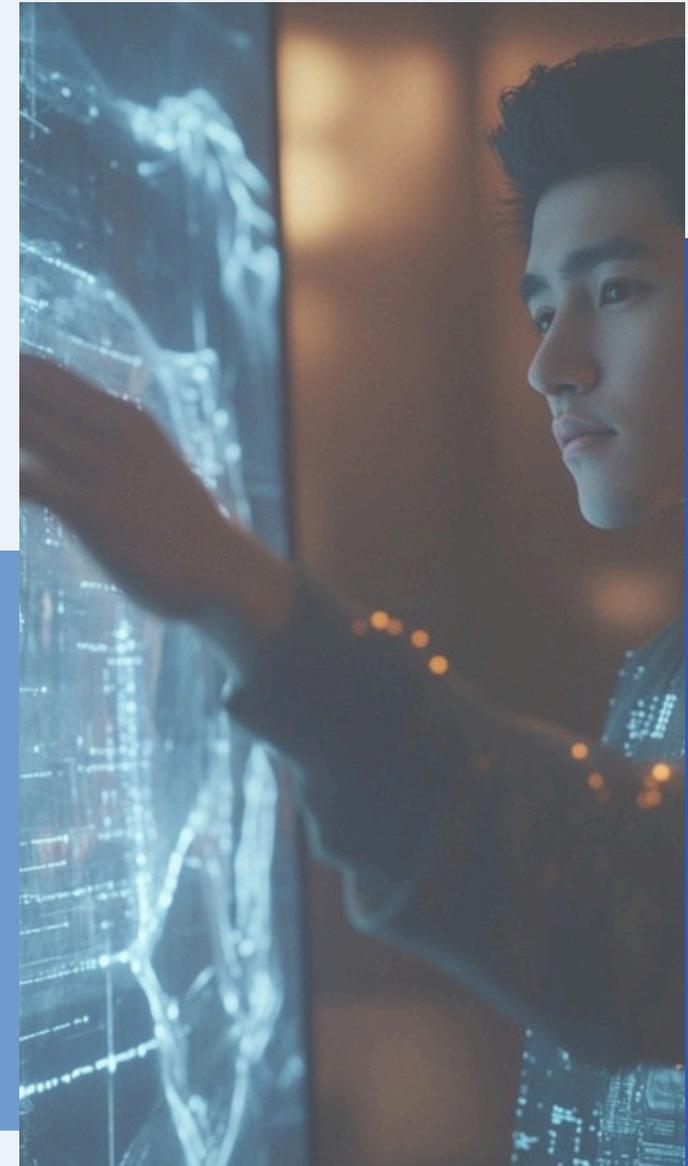
**04** **Accountability**  
Establish clear responsibility for AI and data science outcomes.

**05** **Fairness**  
Regularly test algorithms for fairness across different demographics.

**06** **Security**  
Incorporate security measures to safeguard sensitive information.

**07** **Compliance**  
Stay up-to-date with relevant regulations and legal standards.

**08** **Sustainability**  
Promote environmentally responsible practices in AI development.



# Future of AI Careers



## Healthcare Analytics

01

Utilizing AI and data science to enhance predictive analytics for patient outcomes and streamline operational efficiency within healthcare systems to improve overall service delivery.

## Financial Forecasting

02

Implementing machine learning algorithms to analyze market trends and provide professionals with data-driven insights for better investment decisions and risk management in the finance sector.

## Smart Manufacturing

03

Leveraging AI and analytics to optimize supply chain operations, reduce downtime, and enhance production efficiency through data-driven decision-making in manufacturing industries.

# Networking and Professional Development in Data



01

## Join Communities

Participate in online or local groups related to data analytics.

02

## Attend Workshops

Engage in hands-on workshops to enhance your technical skills.

03

## LinkedIn Networking

Connect with industry professionals to explore opportunities and insights.

04

## Mentorship Programs

Seek mentorship from experienced professionals in the data field.

05

## Contribute to Projects

Volunteer for data-related projects to gain practical experience.

06

## Participate in Conferences

Attend industry conferences for networking and learning new trends.

07

## Build Personal Brand

Share your knowledge and projects on social media platforms.

# THANK YOU



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