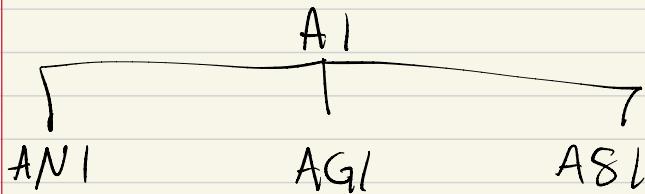


Exploring AI & Machine learning

What is AI?

AI can be broken down into 3 categories



What You'll learn

What is Data Analytics / Data Science

- Machine Learning
- Data
- AI Organizations
- What can you really do with this ?
- Deep learning

Machine Learning

The rise of AI has been largely driven by one tool
in AI

Machine learning

Input → Process → Output

User info → Model → Click?

Email → Model → Spam

Video → Model → Transcript

Shopping History → Offers

English → Model → Spanish

Product → Image → Defective

Use Cases

Social Media

Spam Filter

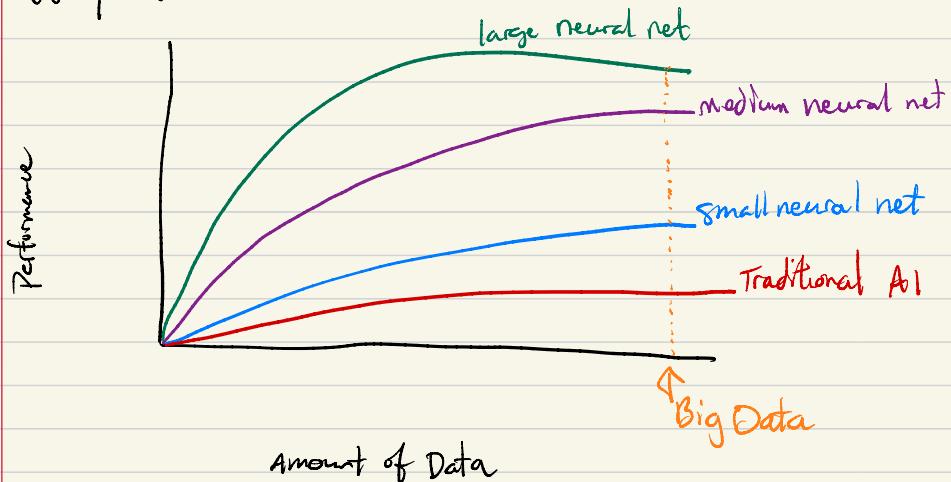
Speech Recognition

Recommender Systems

Speech Translation

Q&A

Why Now



We've had more data in history and more compute power

What enables AI to work well is **data**

Look up Google Tag Manager

Acquiring Data

- Valuable skills to find data and sort it
- You must label your data
- Don't throw Data at an AI team & assume it is valuable
- Have the vision first & see how data can add to the vision

Data is messy.

- Garbage in, Garbage Out
- Data problems
 - Incorrect labels
 - Missing values
- Multiple types of data

images, audio, text
unstructured

size of house	# of bedrooms	price (1000 \$)
523	1	45
645	1	1001
708	unknown	210
1034	3	unknown
Unknown	4	355
2524	unknown	440

Structured

Machine learning Engineer create a software
Data scientist will build slides to analyze a model
Data analyst + machine learning engineer put together

Terminology of AI

Deep learning

What makes an AI company?
A lesson from the rise of the Internet

Internet Era

- Shopping mall + website
≠ Internet company
- A/B testing
- Short iteration
- Decision making pushed down to engineers and other specialized roles

AI Era

- Any company + deep learning
≠ AI company
- Strategic data acquisition
- Unified data warehouse
- Pervasive automation
- New roles (eg MLE) and division of labor

