Tema 3 : Aplicaciones

Deep Learning in **One** Slide

- **What is it:**
  Extract useful patterns from data.

- **How:**
  Neural network + optimization

- **How (Practical):**
  Python + TensorFlow & friends

- **Hard Part:**
  Good Questions + Good Data

- **Why now:**
  Data, hardware, community, tools, investment

- **Where do we stand?**
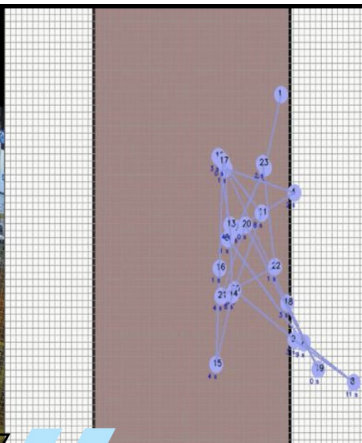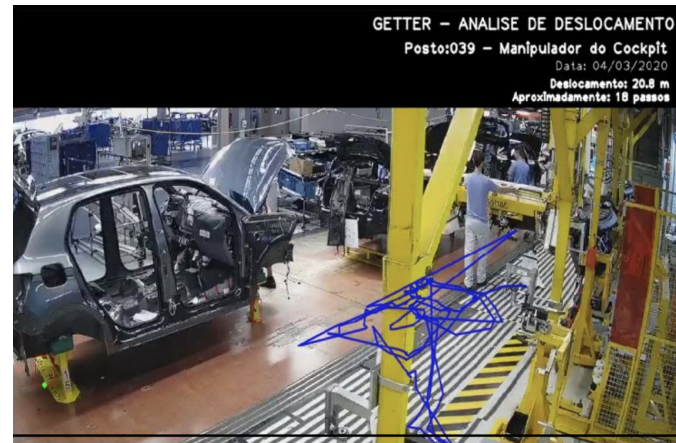 Most big questions of intelligence have not been answered nor properly formulated

Exciting progress:

- Face recognition

- Image classification

- Speech recognition

- Text-to-speech generation

- Handwriting transcription

- Machine translation

- Medical diagnosis

- Cars: drivable area, lane keeping

- Digital assistants

- Ads, search, social recommendations

- Game playing with deep RL

source:
MIT Deep Learning

- AutoML: https://www.youtube.com/watch?v=GbLQE2C181U
- Face Recognition: https://www.kairos.com/demos
- Fakenet: https://thispersondoesnotexist.com
- GPT-2: https://talktotransformer.com
- AlphaGo: https://www.youtube.com/watch?v=1PkrEJeazWw
- Self-driving: https://www.youtube.com/watch?v=-96BEoXJMs0

Ejemplo que estoy trabajando actualmente

GETTER – ANALISE DE DESLOCAMENTO
Posto:039 – Manipulador do Cockpit
Data: 04/03/2020
Deslocamento: 20.8 m
Aproximadamente: 18 passos

GETTER

ALEM DE IDENTIFICAR TAREFAS EXECUTADAS EM DESACORDO COM A POSTURA PLANEJADA

Lado Esquerdo 3	Lado Direito 2
Angulo do Braco: −23.12	Angulo do Braco: −4.86
Nivel 1: 10.1 seg 42x	Nivel 1: 9.8 seg 43x
Nivel 2: 8.6 seg 31x	Nivel 2: 7.4 seg 32x
Nivel 3: 2.6 seg 25x	Nivel 3: 1.4 seg 18x
Nivel 4: 0.3 seg 2x	Nivel 4: 1.3 seg 2x
Nivel 5: 0.3 seg 1x	Nivel 5: 0.3 seg 2x
Angulo do Antebraco: 56.32	Angulo do Antebraco: 62.30
Nivel 1: 11.4 seg 45x	Nivel 1: 11.6 seg 55x
Nivel 2: 5.8 seg 44x	Nivel 2: 4.6 seg 55x

Score Tronco e Pescoco 3	
Angulo do Corpo: 61.82	Angulo do Pescoco: 145.20
Nivel 1: 4.0 seg 10x	Nivel 1: 3.3 seg 44x
Nivel 2: 1.5 seg 16x	Nivel 2: 4.0 seg 61x
Nivel 3: 7.0 seg 11x	Nivel 3: 17.6 seg 61x
Nivel 4: 0.0 seg 0x	Nivel 4: 0.0 seg 0x