



The Age of AI

The pitfalls of AI and the impact on
jobs

Presented by: Paul Hammond II, MS

April 11, 2020

Overview

- What AI is and what AI isn't?
- How does it work?
- What AI can do for you
- AI too good to be true?
- AI and the end of jobs?

What AI is and what AI isn't?

- AI (Artificial Intelligence) is often confused with Machine Learning
- What are the differences between the two?



Artificial Intelligence

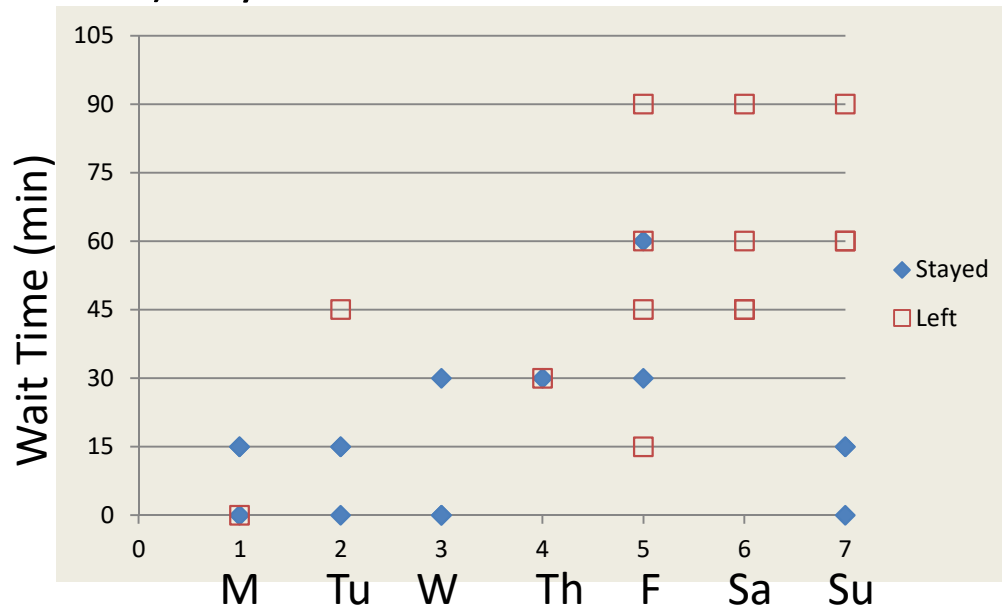
- Independent Thought
- Curiosity
- Feelings?

Machine Learning

- Task specific
- No Free thoughts

How does it work?

- Classic Machine Learning Example
 - Restaurant needs to know if people will wait?
 - Data gathered from 30 patrons
 - 1) Current wait time
 - 2) Day of the week



How does it work?

- Restaurant needs to know if people will wait?
 - Based on this example there were two components we discussed
 - $P(Y | X) = X * W$
 - X is the data (feature set) of day of the week and wait time
 - $P(Y | X)$ is the outcome if they stayed
 - W is the key part of the equation called the weights
 - » It's the magic spice in the program
 - » It associates the outcomes to the specific features

How does it work?

- How to find W ?
 - Start with training data (X) with a known $P(Y | X)$
 - Depending on the method, you can directly find a solution for W
 - With the known W , you use a testing data set (X) to see how well your predictions are [$P(Y | X)$]
 - Congrats! You now can predict with some level of accuracy. Now go rule the world, right?

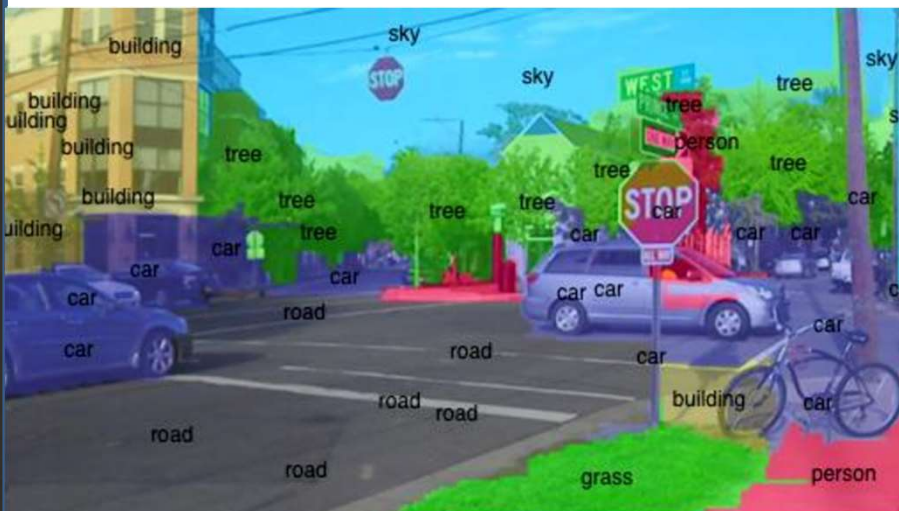
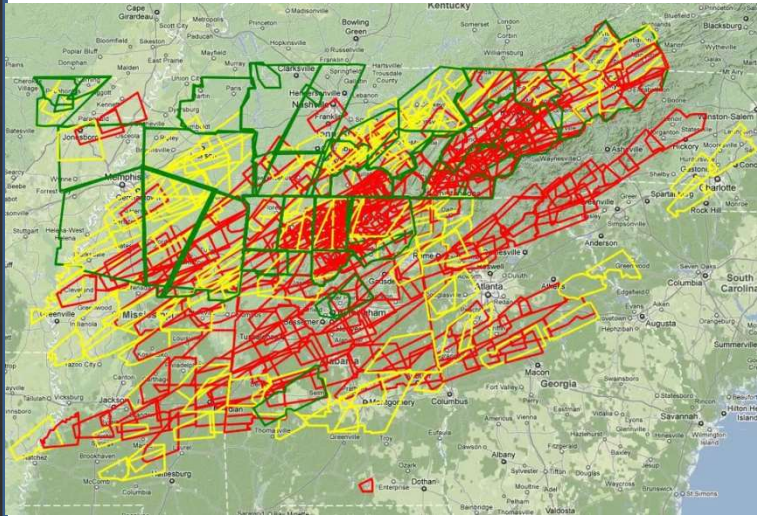
How does it work?

- It's not so simple
 - We looked at a simple 2 feature and 2 outcome problem
 - If you only need 2 features you don't need machine learning. More appropriate for:
 - Do they have indoor or outdoor sitting?
 - What time of day is it?
 - What are the Yelp reviews?
 - Each problem needs different types of Machine Learning Algorithms

How does it work?

- What other challenges?
 - Need data.... and a lot of it!
 - Need a lot of feature sets
 - Knowing what features are important
 - More data means more space
 - Increased processing power of the computer

What AI can do for you



AI too good to be true?

HR/BENEFITS

How Amazon Accidentally Invented a Sexist Hiring Algorithm

A company experiment to use artificial intelligence in hiring inadvertently favored male candidates.

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By Guadalupe Gonzalez *Staff reporter, Inc.*  [@mariainnyc](https://twitter.com/mariainnyc)

<https://www.inc.com/guadalupe-gonzalez/amazon-artificial-intelligence-ai-hiring-tool-hr.html>

AI too good to be true?


WIRED BUSINESS CULTURE GEAR MORE SIGN IN SUBSCRIBE

TOM SIMONITE BUSINESS 09.05.2019 07:00 AM

Algorithms Should've Made Courts More Fair. What Went Wrong?

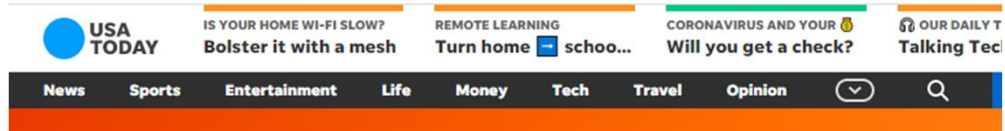
A 2011 Kentucky law requires judges to consult an algorithm when deciding whether defendants must post cash bail. More whites were allowed to go home, but not blacks.

f t e



<https://www.wired.com/story/algorithms-shouldve-made-courts-more-fair-what-went-wrong/>

AI too good to be true?



TECH

Google Photos labeled black people 'gorillas'

Jessica Guynn USA TODAY

Published 1:15 p.m. ET Jul. 1, 2015 | Updated 2:10 p.m. ET Jul. 1, 2015



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<https://www.usatoday.com/story/tech/2015/07/01/google-apologizes-after-photos-identify-black-people-as-gorillas/29567465/>

AI too good to be true?

Google

● This article is more than 2 years old

Google's solution to accidental algorithmic racism: ban gorillas

Google's 'immediate action' over AI labelling of black people as gorillas was simply to block the word, along with chimpanzee and monkey, reports suggest

<https://www.theguardian.com/technology/2018/jan/12/google-racism-ban-gorilla-black-people>

AI and the end of jobs?

- Every new technology was predicted to bring the end of jobs
 - Printing Press
 - Manufacturing
- Is this time different?
 - Which jobs will be replaced?
 - Are there jobs to replace those lost?

<https://www.youtube.com/watch?v=Yvs7f4UaKLo>

<https://www.wsj.com/articles/the-worlds-that-ai-might-create-11571018700>

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Picture References and Repository

- <https://www.pinterest.com/pin/439523244857930159/>: Accessed Apr 7, 2020
- https://www.reddit.com/r/weather/comments/foxlge/map_of_all_severe_storm_and_tornado_warnings/: Accessed Apr 7, 2020
- <https://www.ge.com/reports/software-please-doctors-looking-ai-speed-diagnosis/> : Accessed April 7,2020
- <https://algorithmia.com/blog/introduction-to-computer-vision> : Accessed April 07, 2020
- <http://www.anlytcs.com/2014/01/stock-forecasting-with-machine-learning.html> : Accessed Apr 7, 2020
- <https://www.amazon.com/Androids-Dream-Electric-Sheep-Headwords/dp/0194230635>: Accessed April 8, 2020

References and Articles Repository

- <https://www.inc.com/guadalupe-gonzalez/amazon-artificial-intelligence-ai-hiring-tool-hr.html> : Accessed Apr 07, 2020
- <https://www.wired.com/story/algorithms-shouldve-made-courts-more-fair-what-went-wrong/>: Accessed Apr 07, 2020
- <https://www.usatoday.com/story/tech/2015/07/01/google-apologizes-after-photos-identify-black-people-as-gorillas/29567465/>: Accessed Apr 07, 2020
- <https://www.theguardian.com/technology/2018/jan/12/google-racism-ban-gorilla-black-people>: Accessed Apr 07, 2020
- <https://www.wsj.com/articles/the-worlds-that-ai-might-create-11571018700>: Accessed Apr 07, 2020