



# Algorithmic Bias

Data Boot Camp

Lesson 16.2



The background is a dark charcoal gray with a series of parallel diagonal lines running from the top-left to the bottom-right. Overlaid on this are several teal-colored geometric shapes: a large central triangle pointing right, a smaller triangle to its left, and a square to its right. Scattered around these shapes are various white line-art symbols, including a plus sign, a minus sign, a circle with a dot, a circle with a horizontal line, a circle with a vertical line, a circle with a diagonal line, a circle with a cross, a circle with a dot, a circle with a horizontal line, a circle with a vertical line, a circle with a diagonal line, a circle with a cross, a circle with a dot, a circle with a horizontal line, a circle with a vertical line, a circle with a diagonal line, and a circle with a cross.

**WELCOME**

# Class Objectives

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By the end of today's class you will be able to:



Explain why algorithmic bias is such a significant concern.



List some common causes of algorithmic bias.



Analyze a case study in which researchers identified algorithmic bias in a system.



**How are you feeling about  
your progress so far?**



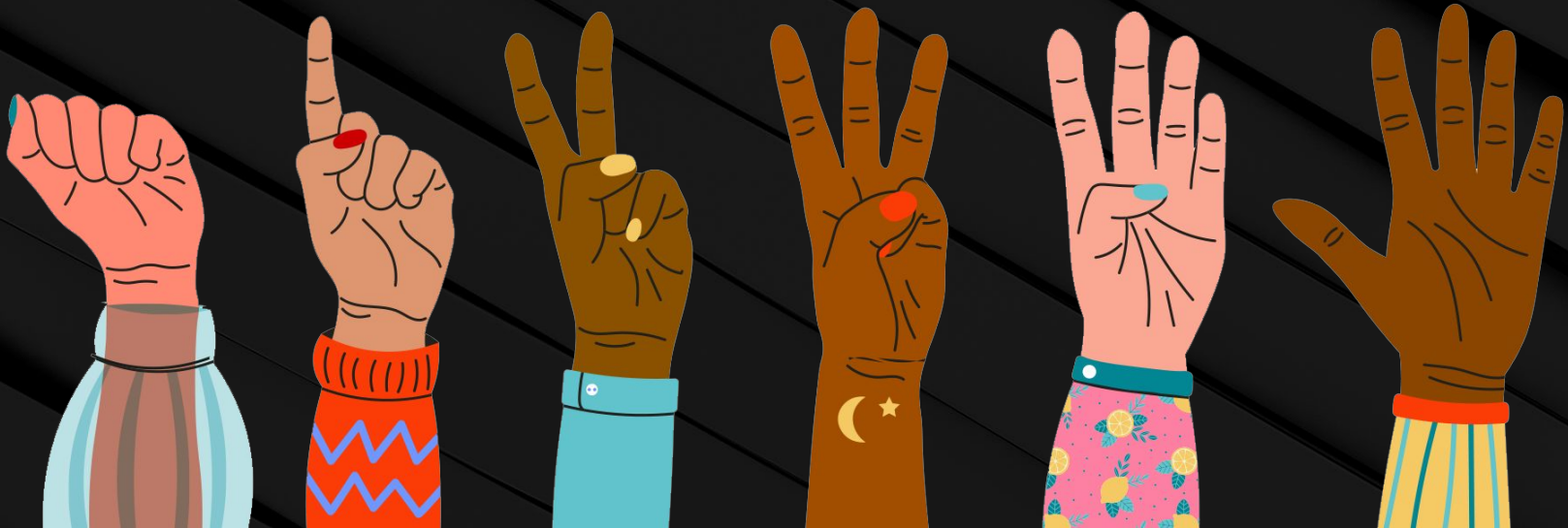
You're starting to  
build your skill set.

It's okay to feel  
overwhelmed,  
but don't give up.

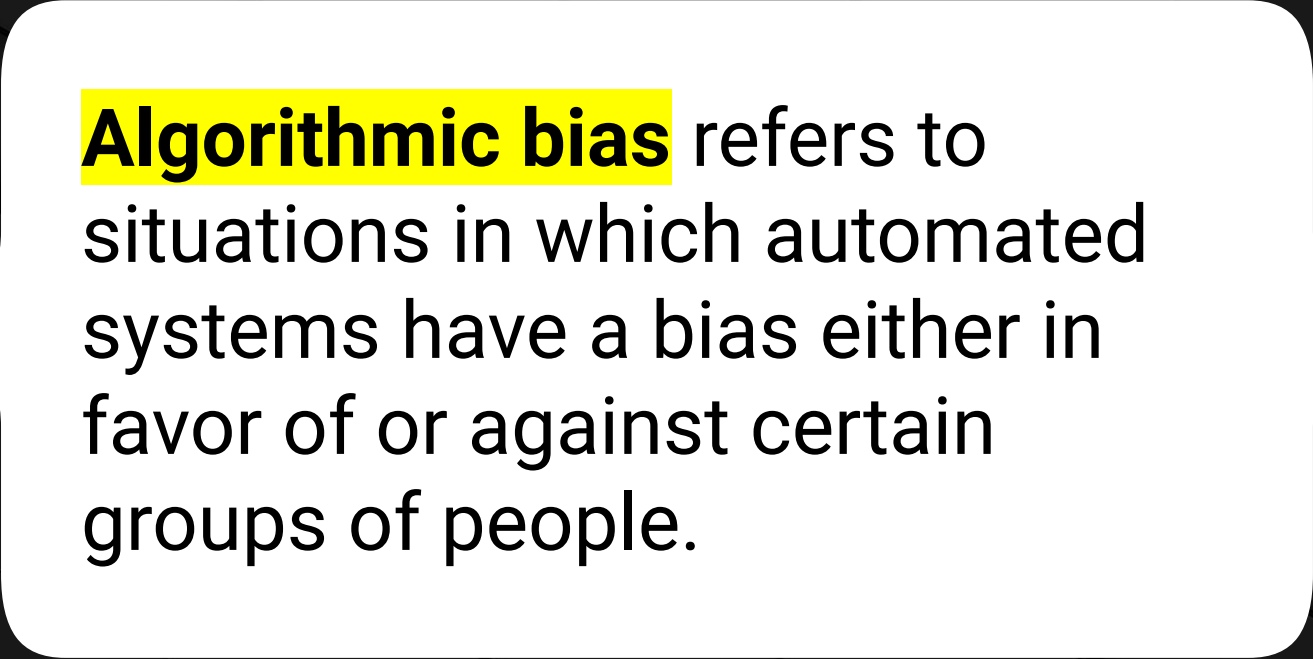
## FIST TO FIVE:

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How comfortable do you feel with this topic?



# Introduction to Algorithmic Bias



**Algorithmic bias** refers to situations in which automated systems have a bias either in favor of or against certain groups of people.



# Technology Leaders on Algorithmic Bias

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According to Data Robot's 2022 study of 350 leaders in tech...



54%

The infographic consists of three overlapping circles connected by a blue line. The first circle on the left is light blue and contains the text '54% are deeply concerned about bias in AI'. The middle circle is white with a blue border and contains '81% want government regulation to prevent algorithmic bias'. The third circle on the right is dark blue and contains '36% have experienced direct business impact due to algorithmic bias'. Each circle has a soft blue shadow underneath it.

are **deeply concerned**  
about bias in AI

81%

want **government  
regulation** to prevent  
algorithmic bias

36%

have experienced **direct  
business impact** due to  
algorithmic bias

# Business Impact of Algorithmic Bias

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Of the 36% that experienced direct business impact



**62%** Lost Revenue



**61%** Lost Customers



**43%** Lost Employees



**35%** Incurred legal fees due to a lawsuit or legal action



**6%** Suffered damage to brand reputation

Learning about examples of algorithmic bias can help us identify situations in which algorithmic bias might happen.



# Algorithmic Bias

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The more that we know about these situations, the more we can do two things.

01

Notice common factors that cause these issues.

02

Continue to follow up on these stories to find out how companies worked to correct the bias that they found.



## Activity: Healthcare Bias

In this activity, you will learn about an instance of algorithmic bias in the healthcare industry. In 2019, researchers found that a widely used algorithm for assessing healthcare needs was racially biased.

Suggested Time:

15 Minutes



Time's Up! Let's Review.

# Questions?









# Questions?



# Project 3 Group Work

# Questions?



*The  
End*