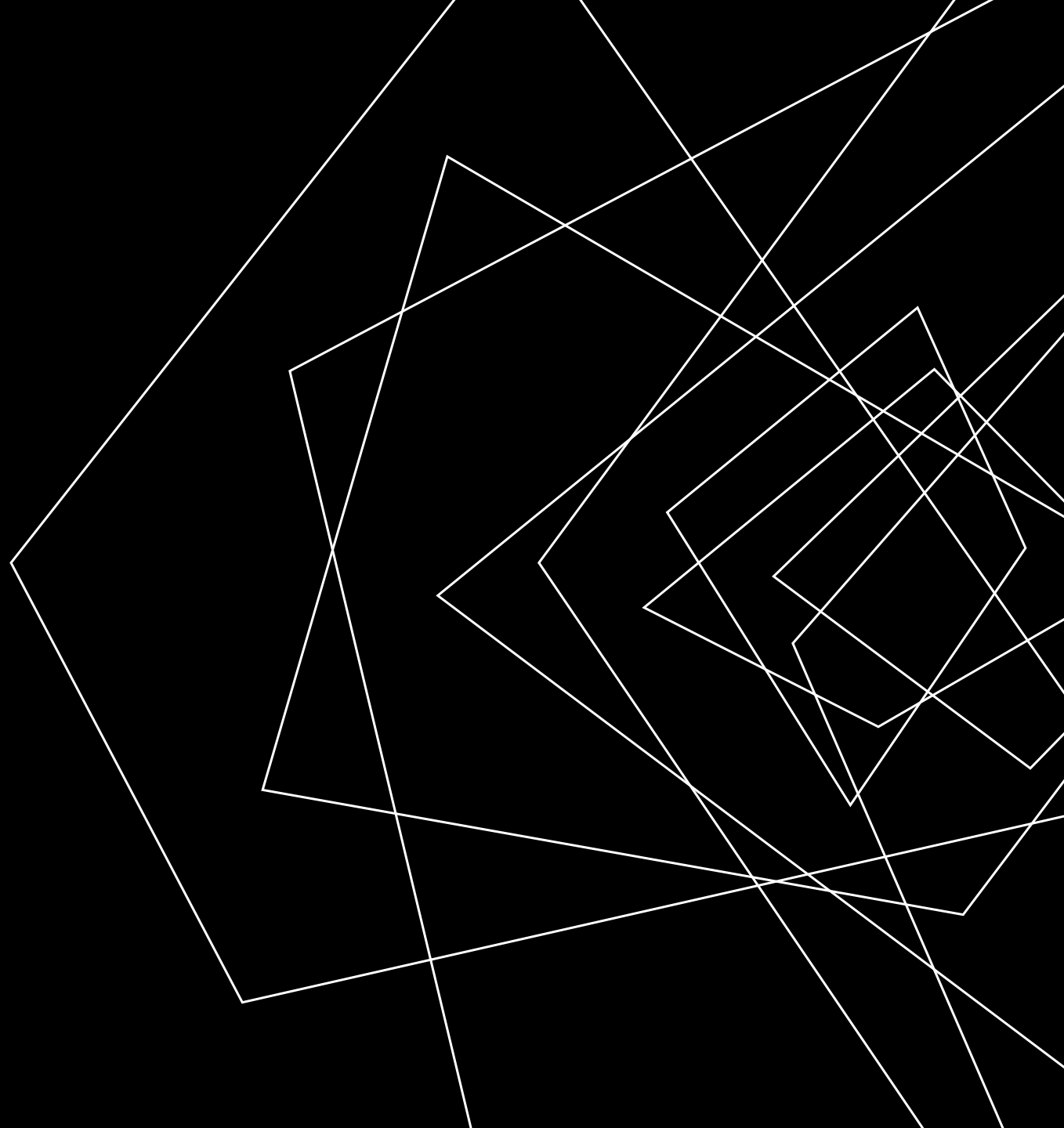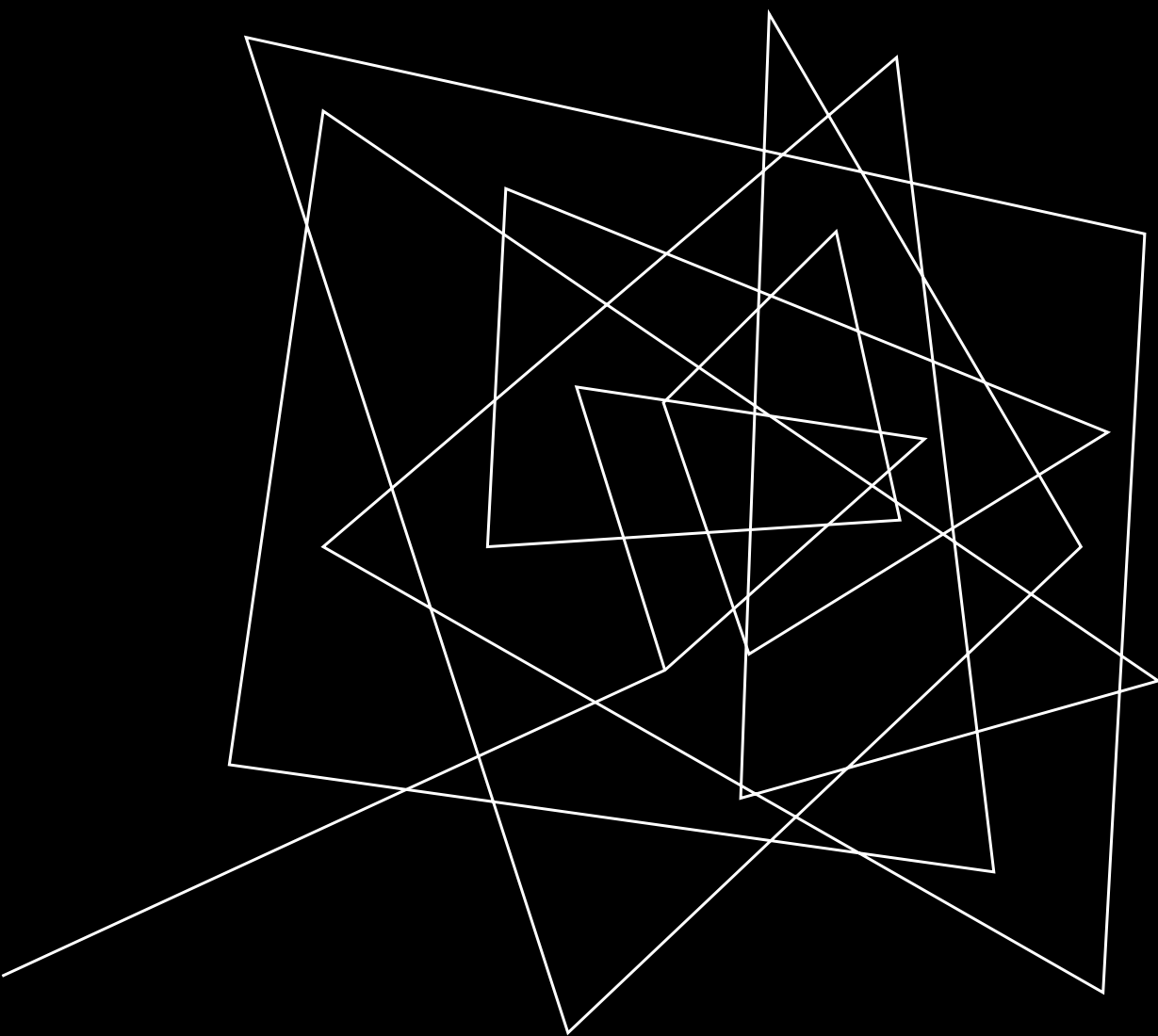# ETHICAL ISSUES IN DATA SCIENCE

TOPICS FOR TODAY!

- ChatGPT

- Privacy and surveillance

- Racism in AI

- Jobs

- Healthcare

GROUND RULES!

- If you have something to say, don't be afraid to say it!

- There is no need to raise your hand, just be sure not to interrupt anyone else

- It'd be really awkward if we all just sat here in silence, so please please participate

- Be respectful of others and their views!

ACADEMIC INTEGRITY AND CHATGPT

- ChatGPT has seen a lot of press lately, starting discussions on plagiarism and academic integrity. What does plagiarism mean to you? If you were a professor, and a student turned in an AI-generated paper, would that be a plagiarism issue, or something else?

- How should we approach ChatGPT? Is it a research tool that we must teach people to use properly, or should we just avoid it entirely?

- Further reading
    - https://www.wired.com/story/chatgpt-college-university-plagiarism/
    - https://www.openculture.com/2023/02/noam-chomsky-on-chatgpt.html

PRIVACY AND SURVEILLANCE

- In big cities, police forces are beginning to use data to not just respond to crime, but stop it before it starts. Predictive policing is the collection and analysis of data about previous crimes for identification and statistical prediction of individuals or geospatial areas with an increased probability of criminal activity to help develop policing intervention and prevention strategies and tactics. What are the implications of predictive policing? Are there benefits? Drawbacks?

  - [What's predictive policing?](#)

- Where do you think we should draw the line between safety and privacy? Does increased surveillance keep us safe? Why or why not?

  - Consider on-campus housing. Would you feel safer if the area around your dorm was surveilled or if it had more privacy?

PRIVACY AND SURVEILLANCE, CONT.

- The more data that tech companies have, the easier it is for them to deliver their product and the more convenient it is for users (think biometric authentication, platforms offering content recommendations, etc.). Where do you think we should draw the line between privacy and convenience?

  - Consider Siri. Apple hires contractors to provide quality control for it, but they end up hearing lots of confidential information. Apple is not transparent about this.

- What responsibility do governments and corporations have to keep our data secure? Do you think they're being held accountable to the extent they should be?

- Is there an ethical/unethical way for governments and/or corporations to collect personal data?

PRIVACY AND SURVEILLANCE, CONT.

- Further reading
  - https://www.forbes.com/sites/nicksibilla/2021/04/26/lawsuit-florida-county-uses-predictive-policing-to-arrest-residents-for-petty-code-violations/?sh=2660fbb62d0f
  - https://www.washingtonpost.com/technology/2022/12/02/tsa-security-face-recognition/
  - https://www.tandfonline.com/doi/full/10.1080/01900692.2019.1575664
  - https://www.digitalocean.com/community/tutorials/user-data-collection-balancing-business-needs-and-user-privacy
  - https://www.nytimes.com/wirecutter/blog/data-harvesting-by-companies/

RACISM IN AI

- AI technology (like facial recognition) has been known to not be the most reliable with people of color. Could this problem be solved with more diversity in the tech industry and training data, or is there more that needs to be done?

- Further reading (and watching!)
  - https://time.com/5520558/artificial-intelligence-racial-gender-bias/
  - Coded Bias (on Netflix, or you could probably find the full thing on YouTube)

JOBS AND THE ECONOMY

- As technology gets more advanced, more and more jobs are gaining the potential to be replaced with AI. We've recently seen this in art and music, for example. Presumably, this will lead to a decrease in the amount of jobs (mainly "unskilled" labor) available, therefore increasing the unemployment rate. What potential solutions do you think are available? Should we limit the types of technology used? Should we progress with technology that replaces human laborers and, as a society, change our relationships with labor and money?

- How do you think, if we advance this technology, humanity will be affected? Will we be like the humans from Wall-E? Will we even know how to do anything anymore? What if AI fails?

JOBS AND THE ECONOMY, CONT.

- Further reading
    - https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf
    - https://www.brookings.edu/blog/up-front/2022/01/19/understanding-the-impact-of-automation-on-workers-jobs-and-wages/

AI IN HEALTHCARE

- AI is beginning to be used in healthcare more and more. There is a wide array of applications in this realm, from predicting patient outcomes to creating new drugs. What are the risks and benefits involved with using AI to inform patient care? What kinds of solutions can you think of to mitigate the risks?

- Further reading:
    - https://www.gao.gov/products/gao-21-7sp
    - https://www.pharmacytimes.com/view/artificial-intelligence-applications-in-education-and-pharmacy-practice
    - https://hbr.org/2020/12/can-ai-fairly-decide-who-gets-an-organ-transplant

THAT'S ALL, FOLKS!

Thank you for coming :)

A PDF of these slides is available on the GitHub! Please check them out for some fun reading material if you'd like to learn more about any of the topics we talked about today!