Week 4: Neural Networks [February 16, 2021]

1. KEY QUESTIONS

- *Continued from last time:*
  - What differentiates a good visualization from a bad visualization?
  - What are the consequences of deceptive visualizations? How can one identify a deceptive visualization?
- How does a neural network mimic the human brain?
- How does a neural network work, on the most fundamental level?
- What are some real-world applications of neural networks?
- How can neural networks accelerate the field of biotechnology?

2. BRIEF AGENDA

- Guest Lecture by Soha Hassoun
- Announcements
- Break
- Good Viz / Bad Viz Shareout
- Tableau Share-out
- Intro to Neural Networks
- TensorFlow Playground!

3. TIMELINE

- **5:50pm - 20 minutes:** Let folks trickle in and set up projector / screen-share for Zoomers
  Sook-Hee will introduce Soha

- **6:10pm - 1 hour:** Guest lecture on neural networks in bio research by Soha Hassoun *Assuming Soha will leave 10 minutes for questions at the end*

- **7:10pm - 15 minutes**: Break for snacks / dinner and socialization

- **7:25pm - 5 minutes**: Announcements / administrative things
  Sook-Hee leads, Sejal oversees and helps get Zoomers checked back in

- **7:30pm - 15 minutes**: Discuss good & bad visualizations
  Sook-Hee will lead discussion of bad visualizaitons, Sejal will lead discussion of good visualizations

- **7:45pm - 10 minutes**: Tableau Shareout
  Sook-Hee clicks, Sejal calls on people

- **7:55pm - 15 minutes**: TensorFlow Playground
  Sejal leads, both circulate

- **8:10pm - 2 minutes**: Verbally explain the homework >> class dismissed
  Sejal leads, Sook-Hee oversees