

Week 4: Neural Networks [February 23, 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 visualizations, 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