CS 109B/Stat 121B/AC 209B/CSCI 109B: Final Project Glickman, Protopapas Dor Baruch, Michaela Kane, David Loving, & Brandon Walker

Cancer Diagnosis in Medical Imaging

Problem Statement

In the treatment and prevention of cancer, early detection plays a crucial and often life-saving role.

Data Recources

XXX Title of data source 1.

1. XXX Data Source 1

Description of data source 1.

- feature set 1
- feature set 2
- feature set 3

2. XXX Data source 2

- feature set 1
- feature set 2
- feature set 3

Literature Review

Modeling Approach

Results and Interpretation

Conclusion and Future Work

References

- 1. Baker, Darren, et al. *Predicting Lung Cancer Incidence from CT Imagery*. Stanford University, 2017.
- 2. Doshi-Velez, Finale, et al. "Accountability of AI Under the Law: The Role of Explanation." *SSRN Electronic Journal*, 2017, doi:10.2139/ssrn.3064761.
- 3. He, Kaiming, et al. "Deep Residual Learning for Image Recognition." 2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016, doi:10.1109/cvpr.2016.90.

Last Modified: April 30, 2018

- 4. Narayanan, Menaka, et al. "How Do Humans Understand Explanations from Machine Learning Systems? An Evaluation of the Human-Interpretability of Explanation." 5 Feb. 2018.
- 5. Ronneberger, Olaf, et al. "U-Net Convolutional Networks for Biomedical Image Segmentation." *Informatik Aktuell Bildverarbeitung FÃijr Die Medizin*, 2017, doi:10.1007/978-3-662-54345.
- 6. Ross, Andrew Slavin, and Finale Doshi-Velez. "Improving the Adversarial Robustness and Interpretability of Deep Neural Networks by Regularizing Their Input Gradients." *Association for the Advancement of Artificial Intelligence*, 2018.