Feature Importance

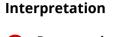
Individual Feature Importance

Interpreting Deep Learning Models

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Quiz: ML Interpretation

Assignment: ML



Programming Assignment: ML Interpretation

Acknowledgments

Reading: Acknowledgements 10 min

Reading: Citations 10 min

Citations

Week 1

- Levamisole and fluororacil background: https://www.nejm.org/doi/full/10.1056/NEJM199002083220602
- Data sourced from here: https://www.rdocumentation.org/packages/survival/versions/3.1-8/topics/colon
- C-statistic for benefit: https://www.ncbi.nlm.nih.gov/pubmed/29132832
- T-learner: https://arxiv.org/pdf/1706.03461.pdf

Week 2

- Grad cam: https://arxiv.org/pdf/1610.02391.pdf
- Random forests + permutation importance: https://www.stat.berkeley.edu/~breiman/randomforest2001.pdf (R45f14345c000-1 Breiman, "Random Forests", Machine Learning, 45(1), 5-32, 2001.)
- Shapley importance: https://www.nature.com/articles/s42256-019-0138-9

Week 3

- Labeling methods and dataset: https://arxiv.org/abs/1901.07031
- Huggingface transformers library: https://github.com/huggingface/transformers
- BERT paper: https://arxiv.org/abs/1810.04805
- Question answering data set (used for example): https://rajpurkar.github.io/SQuAD-explorer/

Clinical note example for question answering: https://www.mtsamples.com/

Mark as completed



