Examining the brain with explainable artificial intelligence

Characterizing diversity in patients with dementia



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Dementia clinical



Dementia neuroimaging

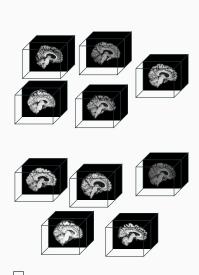


Dementia prevalence

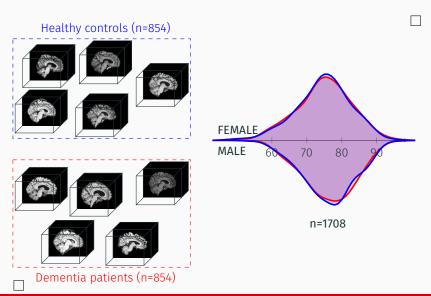


Dementia heterogeneity



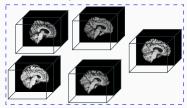


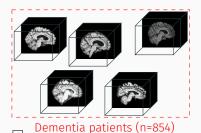






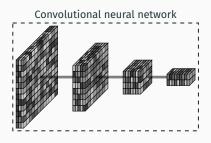
Healthy controls (n=854)



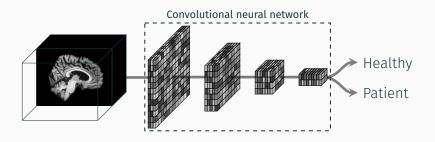


Machine learning model

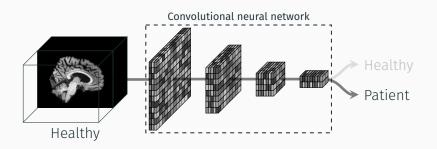














Explainable artificial intelligence

Neural network



Explainable artificial intelligence

Forward pass



Explainable artificial intelligence

Explainability



Examples



Explainable AI: Caveats

Prediction



Explainable AI: Caveats

Edge detector



Dementia average



ALE average



Overlaps



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