

Exploring brain heterogeneity in patients with neuropsychiatric disorders using explainable artificial intelligence



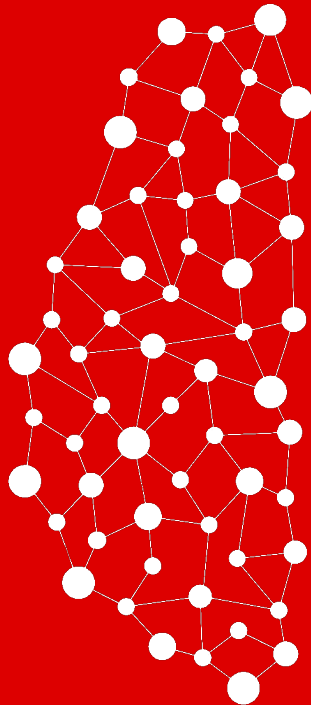
Esten H. Leonardsen

Post-doc at the Department of Psychology,
University of Oslo

Chief Scientific Officer, baba.vision



UNIVERSITY
OF OSLO



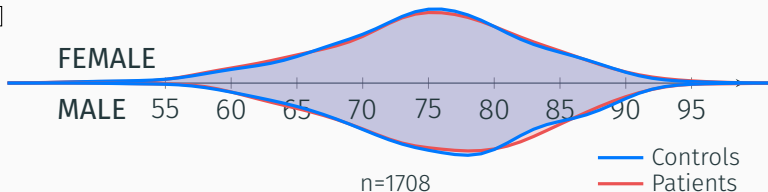
1. Background
2. Explainable artificial intelligence for dementia-prediction
3. Explainable brain age predictions

Explainable artificial intelligence for dementia

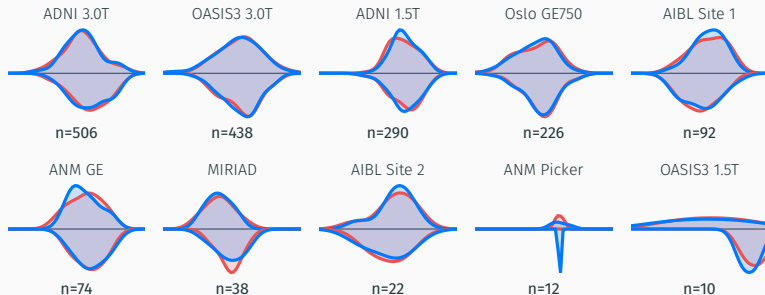
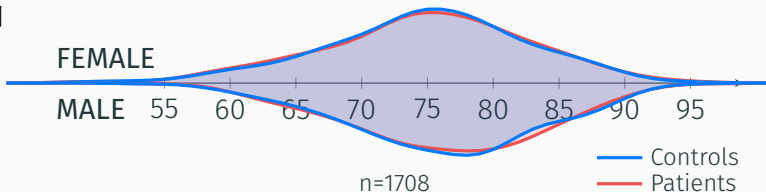


UNIVERSITY
OF OSLO

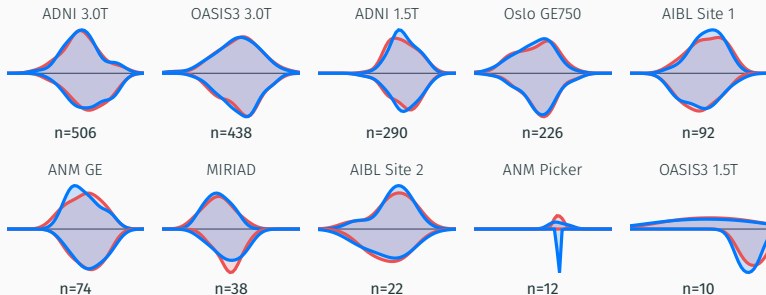
Dementia: Dataset



Dementia: Dataset



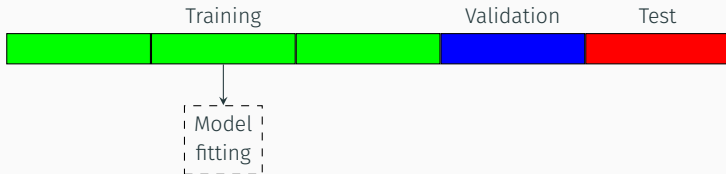
Dementia: Dataset



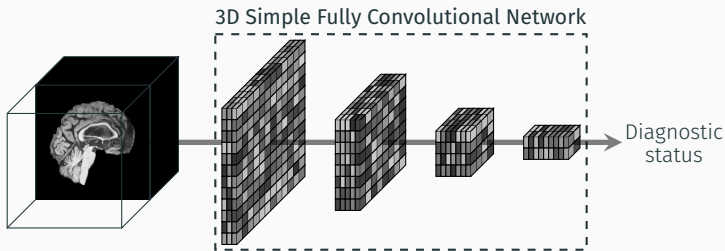
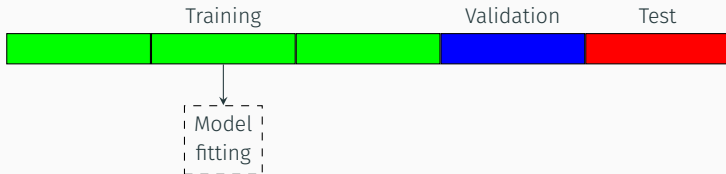
Dementia: Modelling



Dementia: Modelling



Dementia: Modelling



Dementia: Modelling



Hyperparameter	Values
Weight decay	$\{10^{-2}, 10^{-3}\}$
Dropout	$\{0.25, 0.5\}$
Learning rate schedule	$\{\text{stepwise, cyclic, one-cycle}\}$
Augmentations	$\{\text{light, heavy}\}$



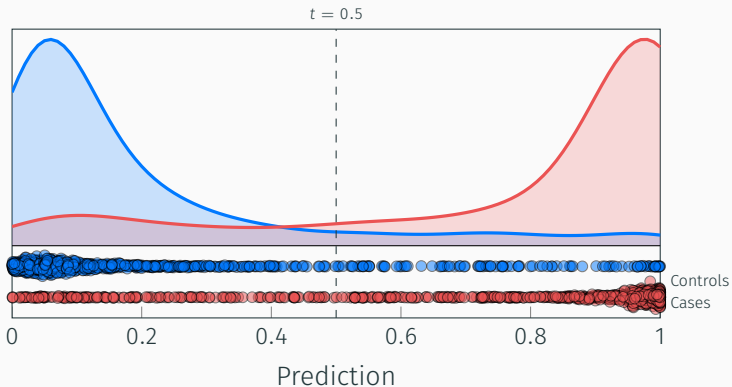
Dementia: Modelling



Dementia: Modelling



Dementia: Modelling



Thank you for your attention!

estenhhl@uio.no



UNIVERSITY
OF OSLO

