

Representational Learning in Medicine

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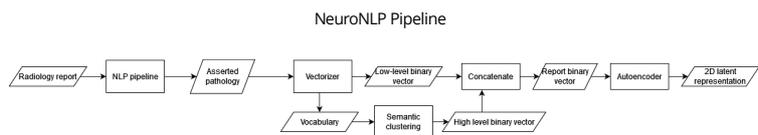
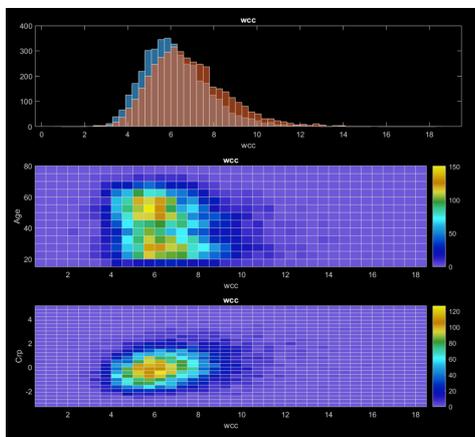
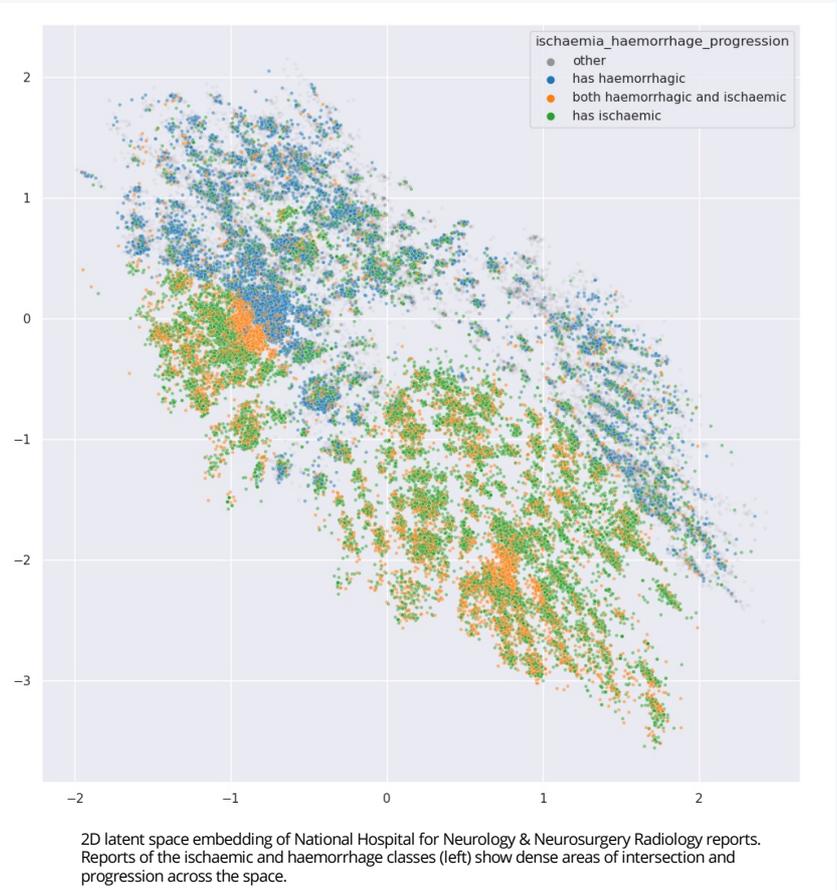


I've been fortunate to work on various projects in Professor Nachev's research group, honing my AI and ML skills. My primary contribution this year has been to NeuroNLP, an AI system that classifies and labels neuroradiology reports. This not only generates operational data but also provides ground truth data for advanced image classification and generation algorithms.

Subsequently I have performed exploratory data analysis and machine learning modelling on flow cytometry datasets with the aim of combining these with scanner imaging, in order to make predictions on known biomarkers then extending this to clinical outcomes.

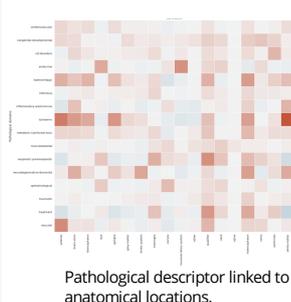
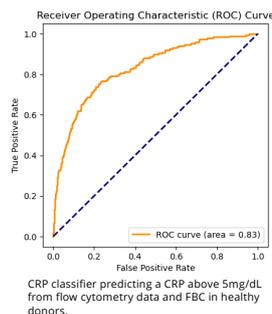
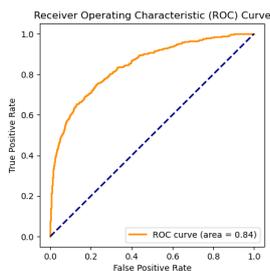
To further my professional growth in AI and ML, I've completed 14 DataCamp courses and am pursuing a qualification in Data Science and Machine Learning. I've participated in various speaking and teaching events, attended the Digital Health Rewired 2023 conference and lead an AI table discussion at the Government Data Summit 2023.

My goal is to apply the knowledge and skills I've gained to develop data-driven and ML-based solutions to clinical and operational problems. My next step is a one-year research fellowship in liver transplant anaesthesia, where I will apply ML techniques to clinical risk estimation and devise innovative preoperative assessment approaches that enhance safety and efficiency through ML and automation.



Heterogeneous signal **DESCRIPTOR** is demonstrated within the surgical bed, along with areas of **faint T1 shortening** **DESCRIPTOR** and **curvilinear enhancement** **DESCRIPTOR**. Note is made of mild **thickening** **DESCRIPTOR** and **enhancement** **DESCRIPTOR** of the anteroinferior aspect of the Iax cerebri **LOCATION**. The remaining intracranial appearances **LOCATION** are stable. Note is also again made of a few non-specific **foci of T2 hyperintensity** **DESCRIPTOR** within the cerebral white matter **LOCATION**.

A radiological report tagged with named entities.



In numbers:

- 2 Projects
- >1500 Manually checked reports
- 14 DataCamp courses
- 11 ML models trained
- 9 Masterclasses attended
- 2 Conferences
- 1 paper

Acknowledgements:

- Dr Henry Watkins
- Dr Robert Gray
- Prof Parashkev Nachev

