

PHD Studentship Description:

The studentship will be based at Monash University (莫纳什大学 <http://www.mmai.group/>). The successful candidate will join a multi-disciplinary team of clinician scientists and computer scientists (Prof. Tom Drummond) to develop predictive/diagnosis/treatment models of diseases of interest using multimodal medical data, consisting of images and text. The project will provide an ideal opportunity for any talented and motivated individual to develop technical skills and gain practical experiences in cutting-edge areas of research. Various internship opportunities at NVIDIA, IBM and Airdoc (<https://www.airdoc.com/english/index.html>) will be supported during Ph.D. study.

Bridging program during VISA application will be provided (internship and supported visiting program)

Scholarship opportunities:

<https://www.data61.csiro.au/en/Our-Network/Students/Scholarship-Program>

<https://www.monash.edu/graduate-research/future-students/scholarships>

<https://www.monash.edu/graduate-research/future-students/scholarships/china-scholarship-council>

The Aim

This study centres on how computer-based decision procedures, under the broad umbrella of artificial intelligence (AI), can assist in improving health and health care. Radiology images, eg X-rays, MRI, CT-scans and EHR, form the basic screening and diagnosis procedure for many diseases of interest. The goal of this project is to develop computational models using text and images (and possibly other data modalities) to help medical experts to improve the quality of patient care.

About You

You will be a curiosity driven researcher, who loves to interrogate data using machine learning methods. We expect a solid background in mathematics, algorithms, and programming. In the course of this project, you will develop the knowledge and working skills of deep learning, probabilistic modelling, etc.

Keywords

Precision medicine, predictive medicine, predictors of outcome, artificial intelligence, machine learning, medical imaging, deep learning

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