

PhD and Masters Projects in Engineering / Cardiovascular risk prediction using medical image based machine learning

During the course of this PhD the successful candidate will develop a suit of machine learning algorithms to accurately predict cardiovascular disease risk from medical images using computational modelling, outcome and patient data. The right candidate will work closely with a multi-disciplinary team across medicine, computer-sciences and mechanical engineering. Relevant previous research experience is desired. The right candidate must be an experienced user of python, MATLAB, and TensorFlow and similar software.

Responsibilities evolve around medical image segmentation and processing of dicom images using VMTK and similar tools, use of machine learning algorithms, and data post-processing.

The candidate should have a strong computer science background and ideally have some understanding of the vascular system. Strong problem-solving skills and motivation are required. An interest in and willingness to learn about cardiovascular disease is critical. Previous experience in publishing is highly desirable.

You will be part of an international, dynamic and thriving team across New Zealand and Australia, which values collaboration, inclusivity and excellence. Weekly group and individual meetings will allow you to excel in your work. For more details see www.svmgroup.org and www.coronaryatlas.org.

