



COLLEGE of ENGINEERING
AND PHYSICAL SCIENCES

SCHOOL OF COMPUTER SCIENCE

PhD Seminar 1

Thursday November 10, 2022 at 3:30pm in Reynolds 1101

Kelly Moylan

Eye Movement Scanpath Prediction with Visual Transformers

Advisor: Dr. Neil Bruce

Advisory: Dr. David Flatla

Advisory: Dr. Andrew Hamilton-Wright

Abstract:

While observing a scene, the human eye will move according to the importance of different features. This movement can be recorded and used for analysis of an image. Standard models use these movements to map the saliency of the image. Less attempts have been made to recreate these scanpaths themselves. We propose a model which will use a visual transformer to predict a sequence of locations in a given image. Visual transformers are currently being used in many new applications, and their image sectioning lends itself directly to path prediction. We will also explore the creation of a new, differentiable loss function for scanpath similarity.