

ECOLOGY & BIODIVERSITY SEMINAR SERIES



DR. ALEX CHAN

Born and raised in Hong Kong, Alex did his bachelors and masters in Imperial College London, UK and recently defended his PhD in the University of Konstanz, Germany. His main interest revolves around the study of animal behaviour, but works in the intersection between biology and computer science. He strives to bridge computer vision innovations into the study of animals, acting as a bridge between two fields.

Photo credits: *Elisabeth Boker*

Date: WEDS, Dec 10th

Time: 16:00

Venue: 3N01 (No Zoom)

Computer Vision for Animal Behaviour: Capabilities and Opportunities

In recent years, computer vision and machine learning methods have developed rapidly, and is gradually revolutionizing the way animal behaviour can be quantified. There are two major ways that computer vision can contribute to the field of animal behaviour, the first allows for fine scale measurements that would have been impossible to annotate by hand, and the second to aid human annotation to save laborious data collection. Here, I will first showcase how computer vision can quantify behaviours that would have been impossible by hand, by inferring gaze and attention in birds using 3D posture estimates of head rotation. Next, I will show how computer vision can also aid in human annotation, by automating traditional video analysis. As computer vision continues to grow in popularity, its important to understand the capabilities and limitations of these methods to best design future data collection pipelines in the study of animal behaviour.

