

Project Title	Uncovering the neural code of DRL agents
Supervisor	Prof Anil Bharath
Theme(s)	Computational and Theoretical Modelling Neurotechnology and Robotics
Project Type	Lab based
Project Description	<p>Neuroscience has evolved exquisite tools to probe the behaviour of neurons in biology. Yet very few of these tools are applied to decipher the encoding of deep neural networks. This particularly true in the field of deep reinforcement learning (DRL), where layered artificial neural networks learn mappings from observations to policies, or control signals. In this project, we build on prior work in agents trained to perform visuo-motor control, such as guiding a robot arm towards a target.</p> <p>The aim is to answer specific questions on parameter distributions and activation statistics, comparing these as training algorithms are altered, or environments perturbed.</p>