

**Titles of Projects for April 2021**

**(With Supervisors in Parenthesis)**

The Differential Privacy Least  $k^{\text{th}}$ -Order Generative Adversarial Network

Alex Le Blanc, Sean Kato, Daniel Howells, Joe Grosso, Tania Sidhom (F. Alajaji)

Tracking Algorithms for Improving Form in Sports

Justin Veiner, Kyle Air, Serena Corscadden, Riley Cooper, Lucy Bai (A. Mansouri)

Control System Development for Mobile Aquaculture Cages

Carlo Rotundo, Andrew Vasila, Min Baek, Maha Almubarak, Qingqin Yang (M. Mohebbi)

Optimal Control of a Compartmental Disease Model of Covid-19 in Ottawa

Evan Arsenault, Cooper Leong, Grace Waddington, Quinn Yetman (B. Yongacoglu)

Exploring Alpha Values for GANs using RényiGAN Generator and RGAN Discriminator

Jesse Agate, Will Coffell, Cameron MacKinnon, Sydney Tschritter, Aidan Yang (F. Alajaji)

Automatic Region Tracking of Brain Lesions in MRI Scans

Katarina Camacho, David Hoskin, Kaitlyn Kobayashi, David Lynch, Nate Nethercott (A. Mansouri)

Harvesting Concentrated Solar Radiation for Red Cross Emergency Response Units in Remote Locations

Alexa Margorian, Sydney Hughes, Leanne Earle, Katie Noble (M. Mohebbi)

Reinforcement Learning for Sustainable Investing

Samuel Bonin, Benjamin Mckee, Liam Murray, Emily Wright (B. Yongacoglu)

Modelling Coronavirus Disease 2019 via a Polya Network Contagion Scheme

Victoria Bolitho Ryan Kwast, Jenna Malone, Adam Wilkinson, Sarah Wood (F. Alajaji)

Local Linearity in Facial Recognition for Commercial Marketing

Adam Pukier, Ethan Morris, Luke Steenge, Niklas Wallgren, Rachel Bouwer (A. Mansouri)

Adaptable Market Maker Agents with Q-Learning

Joshua Wade, Noah Gutmann, Spencer Kelly, Willem Atack (B. Yongacoglu)

Modelling Mental Health in a population via Network Contagion

Emily Arkell, Sabrina Barnes, Jade Buchanan, Troy Giorshev, Jonathan Murano (F. Alajaji)

Face pay: A Facial Recognition Based Payment Method

Alastair Noble, Anastasia Krause, Erik Beier, Erin McGivney, Marcus Uhthoff (A. Mansouri)

Stochastic Control of a Multi-Agent System for Automated Warehouse Fleet Management

Daniel Molyneaux, Ian Ho, Sang Park, Adam Farley (B. Yongacoglu)