

Shae McFadden

PhD Candidate



About me

An independent, reliable, organized, well rounded individual with a passion for strategic pursuits such as computer science, cyber security, and fencing, all having tactical and intellectual components. Past academic and personal successes were obtained through tenacity, ingenuity, dedication, time management and a willingness to guide, learn and collaborate. Fencing is a sport that relies heavily on mental abilities under stress, which developed my problem solving and critical thinking abilities in dynamic and stressful circumstances. Looking for an opportunity to contribute, grow, develop, and use my passion, commitment, and skills to support an objective or organization to realize a collective win.

Areas of specialization

Deep Reinforcement Learning
• Machine Learning • Cyber Security • Defence



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SHORT RESUMÉ

2023–Present

PhD Candidate

DEPARTMENT OF INFORMATICS · King's College London
Thesis on "Security Analysis of Deep Reinforcement Learning for Systems and Networks Security" supervised by Dr. Fabio Pierazzi.



2023–Present

Visiting Scholar

S2LAB · University College London
Visiting Prof. Lorenzo Cavallaro.



2023–Present

Visiting Collaborator

AICD · The Alan Turing Institute
Collaborating with the Artificial Intelligence for Cyber Defence research centre.



2022

King's Undergraduate Research Fellow

DEPARTMENT OF INFORMATICS · King's College London
Evaluation of the impact of poisoning on machine learning classifiers for malware detection.



DEGREES

2023

Computer Science (Artificial Intelligence)

BSc (HONS) · King's College London

First Class with a specialization in Artificial Intelligence.

Dissertation on "Adversarial Machine Learning Evaluation of The MaMaDroid Feature Space".



PUBLICATIONS

2024

Wendigo: Deep Reinforcement Learning for Denial-of-Service Query Discovery in GraphQL.
In proceedings of *IEEE SPW*.

2023

Poster: RPAL-Recovering Malware Classifiers from Data Poisoning using Active Learning.
In proceedings of *ACM CCS*.

AWARDS

2023

Layton Research Award

2023

Alan Fairbourn Memorial Prize

2023

Associateship of King's College

2022

King's Experience Research Award

2020

Governor General Academic Medal

TALKS

2023

"Adversarial Machine Learning Evaluation of The MaMaDroid Feature Space",
*WorldCUR*BCUR*, April 2023.

EXTRACURRICULAR

2022–2024

Captain of the Men's First Fencing Team, King's College London

2017–2020

Canadian National Fencing Team

2020

Fencing Grand Prix Montreal

2019

U18 Fencing World Championships

2019

U18 Fencing Pan American Championships

2018

Commonwealth Fencing Championships

Shae McFadden London, UK shaemcfadden@shaw.ca +44 (0) 7754335479