Lucas Carr

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Education

University of Cape Town

2023 –	BS.c (Hons) in Computer Science	GPA: 81.25
2019 - 2022	B.S. in Computer Science and Philosophy	GPA: 74.63

Coursework

Logics for Artificial Intelligence (5027Z), Information Retrieval (5024Z), Functional Programming (4020Z), Network Security (4026Z), Big Data (4023Z), C++ & Machine Learning (3022F), Networks & Hardware (3002F), Algorithms II & Complexity Theory (3003S), Algorithms I and Data-structures (2001F), Parallelism, Concurrency & Hardware (2002S)

Skills

Languages: C++, Java, Python, Haskell, SQL, HTML, CSS, JavaScript

Technologies: Keras, PyTorch, TensorFlow, Git, TCP/IP Stack

Projects

Honours Project: Deep Learning-Based Malware Classification for Encrypted Botnet Traffic

Data Pre-processing Pipelines, Keras, TensorFlow, Deep Learning

- Built a pre-processing pipeline to extract bi-directional network flow data from CTU-13 dataset
- Evaluated classification & computational performance of five binary classifiers for botnet detection
- Evaluated classification & computational performance of five multiclass classifiers for botnet family classification
- Determined the effects of reduced feature spaces on DL models' performance

Experience

Computer Science Tutor | *University of Cape Town*

2021 - Present

Courses: CSC2001F, CSC2002S, CSC3022F, CSC3002S

- Oversaw weekly lab sessions where students were provided with help on assignments and further explanation of concepts related to their current course.
- Graded and provided feedback on student's assignments.
- Supervised 3rd year student's final semester project of simulating herd movement on terrain using Boid-like creatures.

Waiter | Haru 2018-2020

Achievements

2019	Deans Merit List
2022	Graduated with Distinction in Computer Science, Distinction in Philosophy and Distinction Overall
2022	Certificate of Excellence for CSC3002S
2023	Merit-Based Scholarship