Lucas Carr

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Education

	University of Cape Town	
2019 – 2022	B.S. with Distinction in Computer Science, Distinction in Philosophy, & Distinction Overall	GPA: 74.63
2023 – 2023	BS.c (Hons) with Distnction in Computer Science	GPA: 81.25
2024 – x	MSc in Computer Science	-
2024 - 2024	Spent four months at Technische Universität Dresden as a part of the School of Embedded Composite Artificial Intelligence (SECAI)	-

Coursework

Answer-Set Programming (*5030Z*), 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*)

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

Teaching

Computer Science Lecturer | *University of Cape Town*   2024 - 2024
  Courses: *CSC1015F*

Teaching Assistant for CSC3022F C++ & Machine Learning | *University of Cape Town*   2024 - 2024

Teaching Assistant for CSC4026Z Network & Internet Security | *University of Cape Town*   2024 - 2024

Computer Science Tutor | *University of Cape Town*   2021 - 2023
  Courses: *CSC2001F, CSC2002S, CSC3022F, CSC3002S*

Skills

Languages: C++, Java, Python, Haskell, SQL, HTML, CSS, JavaScript
Technologies: Keras, PyTorch, TensorFlow, Git, TCP/IP Stack

Awards

2019	Deans Merit List - University of Cape Town
2022	Certificate of Excellence for CSC3002S - University of Cape Town
2023	Merit-Based Scholarship - University of Cape Town
2023	Class Medal CSC4026Z Network Security
2024	Exness Scholarship South Africa