

# Dylan Govender

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## EDUCATION

### University of KwaZulu-Natal

*B Sc. Honours in Computer Science*

Durban, South Africa

Jan. 2024 – Dec 2024

### University of KwaZulu-Natal

*B Sc. Computer Science and Information Technology - CGPA: 3.7/4.0*

Durban, South Africa

Jan. 2021 – Dec. 2023

## EXPERIENCE

### Supplemental Instruction Leader

*University of KwaZulu-Natal | Java*

July 2024 – Nov. 2024

Durban, South Africa

- Designed supplemental instruction sessions using active learning techniques to guide students through difficult programming concepts. Assisted more than 30 students to improve their academic performance.

## PROJECTS

### Vision Transformers for Lung Cancer Detection

*Honours Research Project | Python, PyTorch, TensorFlow, Keras, OpenCV, Streamlit*

University of KwaZulu-Natal

- Developed and optimised Vision Transformers (ViT, CVT, CCT-ViT, Parallel ViT, Efficient ViT), from the ground up, and CNNs, evaluating performance across CT and Histopathological scans with Supervised and Transfer learning; achieved 94% accuracy on a balanced dataset and 87% on an imbalanced dataset, applied cost-sensitive metrics to emphasise the implications of real-world errors in medical diagnosis.

### Game Outcome Prediction & Player Outlier Detection



*Machine Learning | Tensorflow, Keras, Scikit-Learn*

Jan. 2023 – July 2023

University of KwaZulu-Natal

- Developed a game outcome prediction and player analysis model using ensemble learning, unsupervised clustering, and outlier detection to predict game results, analyse team performance, and identify outstanding players through offence and defence metrics using different algorithms.

## ACHIEVEMENTS

- Grand Finalist, out of 5000 participants, in Africa's Largest AI Hackathon, A2SV AI for Impact Hackathon. Provided an AI tool that can enhance speaking and communication skills using Generative AI
- Awarded Certificates of Merit for Numerical Mathematics, Advanced Programming, and Natural Language Processing during undergraduate studies.
- Awarded the Dean Commendation thrice for exceptional academic performance during studies.
- Awarded the UKZN Postgraduate and UKZN Undergrad Scholarship towards studies.
- More than 1000+ competitive programming problems solved on different platforms.  

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, C++, C#, SQL (MySQL)

**Artificial Intelligence & Machine Learning:** Google Cloud, PyTorch, TensorFlow, Keras, Sckit-Learn, FastAI

**Computer Vision & Natural Language Processing:** OpenCV, SciPy, NLTK

**Quantum Computing:** QML, PennyLane, VQEs, Qiskit

**Web Development** (beginner): HTML, CSS, React, Node.js, Django

## POSITIONS OF RESPONSIBILITIES

**Class Rep.:** Class Rep. for the Computer Science Honours Class at the University of KwaZulu-Natal

**Programmes:** A2SV Remote Education Student, PROTEC Student

**Societies & Clubs:** Golden Key International Member, Rotary Interact Member, Tech Society UKZN Member