

Andrew Boyley

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Education

University of the Witwatersrand – MSc in Computer Science	Expected 2025
University of the Witwatersrand – BSc (Hons) in Computer Science (w/ distinction)	2022
University of the Witwatersrand – BSc in Computer Science (w/ distinction)	2021

Projects

Board Game AI

- Created an AI for the board game Cryptid using Reinforcement Learning, achieving high accuracy in gameplay
- Trained a PPO agent in a Gymnasium multi-agent environment, with a 90% win rate compared to the baseline

Automated Cryptocurrency Trader

github.com/andrewboyley/crypto-trader

- Developed a cryptocurrency trading bot using Python and Binance API, achieving a 65% win rate in backtesting

Reward Based Data Labelling App

github.com/andrewboyley/reward-based-data-labelling

- Implemented a robust dataset labeling system using MongoDB and VueJS, with a user incentive mechanism for active participation based on labeled items.

Experience

Academic Tutor, University of the Witwatersrand 2021 – Present

- Assessed student exams and gave thorough feedback to improve learning objectives
- Developed a parallel tournament simulator for AI student submissions, running 600+ games in under 2 hours
- Supervised exams and facilitated tutorials, improving student performance through on-the-spot assistance

Website Developer, Decimal Agency

2019 – 2020

- Managed and optimized the Krispy Kreme website using WordPress, ensuring a seamless user experience
- Developed dynamic websites with vibrant animations and responsive designs

Awards & Leadership

The TFG Data Science and Leadership Fellowship, The Foschini Group 2023

- Inaugural fellowship granted to individuals with a natural aptitude for leadership and a strong passion for data science

Facebook Mentorship Program Participant, Facebook

2020

- Improved technical interviewing abilities and faster interview question answering.
- Enhanced behavioural interview skills by consistently applying the STAR method during practice sessions
- Built strong mentorship relationships with Facebook employees, resulting in 2 direct referrals

Wits Yacht Club Vice Chairperson, University of the Witwatersrand

2024

- Managed and maintained the Wits fleet while competing competitively.

Chairperson of Management, Johannesburg Junior Council

2017

- Coordinated correspondence with members and affiliates, maintained council calendar, tracked community service hours, and documented minutes during meetings for transparency and accuracy.

Assistant Troop Scouter, 1st Kibler Park Sea Scouts

2021 - 2023

- Designed and led programs for children, enhancing engagement and skill development
- Completed training courses in sailing, rowing, and canoeing, applying skills to enhance program quality

Skills

Programming Languages: Python, C++, Java

Frameworks: Pytorch, OpenAI Gymnasium, MPI, VueJS

Data Science: Vision Transformers, Reinforcement Learning, Statistical Models, Big data

Languages: English