



Email
Xandercoetzee1503@gmail.com

PROJECTS

AI-Driven Phishing & Forensic Readiness

Architected an automated threat detection and evidence preservation framework, integrating secure forensic protocols to ensure organizational cyber-resilience.

Digital Forensics & Information Security

Executed full-lifecycle penetration testing and forensic analysis across Windows/Linux environments, identifying attack vectors and insider threats through advanced disk-level investigation.

Optimised Data Mining Algorithms

Engineered a scalable, memory optimised weighted Apriori algorithm using transaction ID intersections

Computer Vision & Deep Learning

Developed metaheuristic pipelines for automated image quality enhancement and deployed state-of-the-art YOLO models for real-time object detection.

Cross-Lingual NLP & Emotion AI

Pioneered parameter-efficient transfer learning for multilabel emotion analysis, advancing deep learning capabilities for under-resourced African languages.

Skills

- Cyber Security
- Digital Forensics
- Natural Language Processing (NLP)
- Machine Learning & Deep Learning
- Python Programming
- Data Mining
- Research & Academic Writing
- Web Scraping
- Data Visualisation

Xander Coetzee

BSC IT & BSC HONS COMPUTER SCIENCE GRADUATE

ABOUT

I am a driven problem-solver with a passion for designing innovative solutions to complex challenges. As a dedicated lifelong learner, I embrace new challenges and opportunities for growth, constantly seeking to expand my skillset and expertise.

EDUCATION

Hoërskool Linden (2017 – 2022)

National Senior Certificate

Afrikaans, English, Mathematics, Information Technology, Physical Science, Geography

North-West University (2022 - 2024)

BSc Information Technology

- Computer management and programming
- Designing, development and delivery of computerised systems
- Contribution to management of information and information sources
- Development of IT-related solutions

University of Pretoria (2025)

BSc Honours Computer Science

- Gained advanced technical expertise in Computer Science
- Led and completed a high-standard research project in Digital Forensics
- Applied strong programming and report writing skills across all modules
- Trained in and utilised formal research methodologies.

EXPERIENCE

Assistant lecturer at NWU 2023 – 2024

As an assistant for a programming module, my duties included providing direct coding support to students in labs, grading tests and programming assignments, and managing marks under strict deadlines. I also delivered targeted tutoring on debugging and core concepts. The position required meticulous technical detail and a firm commitment to enhancing student outcomes.

ADDITIONAL ACTIVITIES

- Choral singing in high school and with the NWU PUK Choir has been a joyful way to express my creativity and connect with others through music.
- As a past team leader and manager for an esports team, I enjoyed the camaraderie and the excitement of competitive play, which also fostered a sense of community and collaboration.
- Singing in the university acapella serenade was a fun and unique experience that allowed me to share my passion with a wider audience.
- Playing video games is a favorite pastime that sharpens my problem-solving skills and provides a relaxing escape.