Shane Weisz

Software Engineer, ML Engineer, Data Scientist

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About Me ─────────

I'm a generalist software engineer, specialising in machine learning and AI.

I hold a Masters in ML/AI from Cambridge University, along with two years experience working on global food security for an AI-for-agriculture startup, where I led the development of a suite of ML products that help fruit and nut farmers worldwide.

Outside of work, I love being out in nature, playing sport, photographing birds, quality time with close friends and family, and living life with a smile.

Strengths ─────────

- 💡 First principles thinking
- 💡 Fast learner
- 💡 Communicating clearly
- 💡 Attention to detail
- 💡 Empathy

Hobbies & Interests ──

Education

2021 – 2022	**MPhil in Machine Learning and Machine Intelligence (Distinction, GPA: 80.14)**	University of Cambridge

- Distinction in the highly-competitive MLMI program, which receives over 600 international applicants for just 25 places (see transcript here).
- Distinction for my thesis on *Automating Counterspeech in Dialogue Systems*, fine-tuning LLMs to generate high-quality AI responses against hate speech (see examiners' comments here). The research was published as a book chapter in *Counterspeech* by Routledge.

2017- 2020	**BSc (Honours) in Computer Science, Mathematics and Statistics (GPA: 95.96)**	University of Cape Town

- 17 Class Medals for 1st in course (see transcript here)
- 100% for every Maths course
- Distinction in all three majors, and distinction for my thesis on *Low-resource Network Classification using Deep Learning*, evaluating Convolutional Neural Networks against classical ML methods (see conference publication here).

2012 – 2016	**IEB Matric Certificate (Average: 97%)**	St David's Marist Inanda

Top 1% for all subjects, Dux Scholar, 100% for Maths and Science (see Matric Certificate here and Deputy Headmaster's reference here)

Experience

Jan 2023 – Oct 2023	**Software Engineer (Machine Learning)**	Aerobotics

Technical lead in the AI team at Aerobotics, a South African AI-for-agriculture startup working towards global food security. Led the development, deployment and scaling of a suite of ML products that help fruit and nut farmers worldwide, leveraging AI to analyze millions of fruit images and deliver data-driven insights across the vertical agriculture chain. Core tech stack comprised Python, Django, HuggingFace, PostgreSQL, DBT, Docker, and AWS.

Jan – July 2021	**Software Engineer (Backend)**	Nomanini

Backend developer at Nomanini, a South African fintech startup working towards financial inclusion in Africa. Led platform expansion into Côte d'Ivoire and Lesotho, building functionality enabling customers in remote rural areas to purchase airtime and electricity. Core tech stack comprised TypeScript, Node.js, REST/GraphQL, MySQL, GCP, Docker, Kubernetes, Helm and Argo Workflows.

June – July 2019	**Data Scientist (Intern)**	Isazi Consulting

Designed a solution for improving the system's OCR engine, by computing character-level confusion matrices from synthetic printed-text imagery.

Miscellaneous

Sport	Played provincial-level sport for hockey, tennis, cricket, and football at various stages of my school career.
	Completed the 2024 109km Cape Town Cycle Tour and 97km Ride Joburg, the world's two biggest timed cycle races.
	Ran sub-4 hours in the 2024 Cape Town Marathon, an Abbott World Major candidate.
Coding Websites & Hackathons	Solved 112 Project Euler problems (top 1% of >1,000,000 users).
	Placed 34th out of 872 (top 5%) in McKinsey's international Data Science Hackathon in 2020 (1st in South Africa).
Maths Olympiad	Consistently reached the Final Round of the SA Maths Olympiad, placing 1st in Gauteng in 2011, and 3rd in 2015 and 2016.
Volunteering	Volunteered as a counselor at Habonim youth camp during my undergraduate summer breaks, as part of a team responsible for supervising, mentoring, educating and inspiring a group of over 100 middle school children.