

# Willie Loftie-Eaton

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## About

I am a Computer Science graduate from Stellenbosch University. In my undergraduate studies, I gained experience with a variety of programming languages (x86 assembly, C, Java, Python, SQL, HTML & CSS, and React.js). In 2025, I pursued an honours in computer science, focusing more on machine learning and computational intelligence (particle swarm optimization and evolutionary computation). I want to have a productive career and I'm eager to work hard and learn a lot in 2026, either as a software engineer, or machine learning engineer.

## Education

**BSc Hons Computer Science**, Stellenbosch University 2025  
Took modules covering **machine learning** (Dimensionality Reduction, Classification, Hidden Markov Models), **computational intelligence** (Particle Swarm Optimization, Genetic Algorithms), **artificial intelligence** (Prolog, Problog, Reinforcement Learning), **automata theory** (Church-Turing Thesis), and **advanced algorithms**.

**BSc Computer Science**, Stellenbosch University 2021-2024  
60% average overall, 65% average for computer science modules.  
Took modules covering **computer science** (DSA, Computer Architecture, Web Development, Databases, Networks, Concurrency, Software Engineering), **mathematics** (Calculus, Linear Algebra, Abstract Mathematics), **applied mathematics** (Graph Theory, Cryptography), **operations research** (Queuing Systems), and **statistics**.

**Matric**, Curro Windhoek Gymnasium High School 2016-2020  
Math 1; Computer Studies 2; Physics 2; Business 2; Afrikaans (1) 3; English (2) 3

## Experience

**Kingly Clark**, Summer Internship June 2024  
Wrote e2e tests for a React Native application using Jest. I also worked with Docker during this internship.

## Projects

**cilpy**  
A library for computational intelligence researchers to study diverse and complex problems, including multi-objective and dynamically constrained optimization problems.

## Research

Particle Swarm Optimization for Large Scale Optimization Problems  
Monads in C

## Skills

**Programming:** Proficient in Python, C, and Java. Familiar with Linux, Docker, Git, SQL, HTML, CSS, and React.js.  
**Mathematics:** Good understanding of calculus and linear algebra, and an elementary understanding of statistics.  
**Languages:** English (native), Afrikaans (native).

## Extracurricular Activities

Started and lead the SU Developer Society and organised a cross country running competition in 2022.