

# 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 (including 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. If you would like to talk about employment or an internship, please reach out.



## Education

<b>BSc Hons Computer Science</b> , Stellenbosch University	2025
Took modules covering <b>machine learning</b> (Dimensionality Reduction, Classification, Hidden Markov Models), <b>computational intelligence</b> (Particle Swarm Optimization, Genetic Algorithms), <b>artificial intelligence</b> (Prolog, ProbLog, Reinforcement Learning), <b>automata theory</b> (Church-Turing Thesis), and <b>advanced algorithms</b> .	
<b>BSc Computer Science</b> , Stellenbosch University	2021-2024
60% average overall, 65% average for computer science modules. Took modules covering <b>computer science</b> (DSA, Computer Architecture, Web Development, Databases, Networks, Concurrency, Software Engineering), <b>mathematics</b> (Calculus, Linear Algebra, Abstract Mathematics), <b>applied mathematics</b> (Graph Theory, Cryptography), <b>operations research</b> (Queuing Systems), and <b>statistics</b> .	
<b>Matric</b> , Curro Windhoek Gymnasium High School Math 1; Computer Studies 2; Physics 2; Business 2; Afrikaans (1) 3; English (2) 3	2016-2020

## Experience

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

## Projects

<u>cilpy</u>	A library for computational intelligence researchers to study diverse and complex problems, including multi-objective and dynamically constrained optimization problems.
<u>flashcards_wle</u>	A flashcards app that allows users to create markdown flashcards. The goals of this app are to 1. help me learn various topics, and 2. serve as a proving ground of my abilities for businesses interested in hiring me as a software engineer.

## Research

Willie Loftie-Eaton. [Particle Swarm Optimization for Large Scale Optimization Problems](#).  
Liam Abbott and Willie Loftie-Eaton. [Monads in C](#).  
In the future, I will continue to upload reports of personal research here: [github.com/willieloea/research](https://github.com/willieloea/research).

## Skills

**Programming:** Proficient in Python, C, and Java. Familiar with 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).  
**Tools:** I know how to use Docker and Git, and like using Linux and  $\text{\LaTeX}$ .

## Extracurricular Activities

Started and lead the [SU Developer Society](#) and organised a cross country running competition in 2022.