**VUYANI MATSHUNGWANA**

- **Email:** vuyani434@gmail.com
- **Phone:** 0721353725
- **Location:** Mthatha, Eastern Cape
- **Portfolio:** https://vuyani02.github.io/portfolio
- **GitHub:** https://github.com/vuyani02
- **LinkedIn:** LinkedIn Profile

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## Professional Summary

I am a final-year Computer Science and Computer Engineering student at the University of Cape Town. I am passionate about coding, problem-solving, and building innovative software solutions, and I'm also always eager to learn anything related to technology.

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## Technical Skills

- **Programming Languages:** Python, Java, C++, Embedded C, Assembly, Embedded Assembly, HTML, CSS, JavaScript.
- **Web Technologies:** Django, REST APIs.
- **Tools:** Git, Linux.
- **Databases:** SQL, MongoDB (Djongo).

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## Academic Projects

### SeaClear Website

In our project, my team and I developed the SeaClear website, a platform aimed at providing real-time information on beach water quality in Cape Town. This website features data driven insights into water safety, including temperature, wind speed, rain, and descriptions of the safety status. The site helps users make informed decisions about which beaches are safe to visit, promoting environmental awareness and public health.

The stack we used on the development of the website is as follows:

Front end: Typescript using react.

Back end: Python using Django.

Database: MongoDB

The project can be viewed on this URL: https://vuyani02.github.io/seaclear/

And it can be found on GitHub via the following URLs:

Front end: https://github.com/vuyani02/seaclear

Back end: https://github.com/vuyani02/poject

During the development of the site, I was responsible for the entire backend development using Python and Django, where I set up the database structure and ensured seamless integration with MongoDB via Djongo. I also developed the REST APIs that enable dynamic fetching of water quality data from external APIs. In addition, I took on the task of implementing most of the data-fetching logic from the APIs in the front end.

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**Bachelor of Science in Computer Science and Computer Engineering** University of Cape Town | Final year Student

- **Relevant Coursework:**
    - o Programming in Python, Java, C++, Networks, Operating Systems, Data Structures and Algorithms, SQL, Parallel and Concurrent Programming in Java, Computer Architecture, Scrum, Agile, Waterfall, Design patterns, SOLID, Software architecture.
    - o Semiconductor Basics, Diodes, Transistors, Operational Amplifiers, Digital Meets Analogue, Micro Controllers, C programming, Digital electronics.

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**Languages**

- **Xhosa:** Native
- **English**