

SABELO DLAMINI

DETAILS

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Durban
South Africa

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DRIVING LICENSE

C1

NATIONALITY

South African

LINKS

<https://github.com/sabelosiba>

<linkedin.com/in/sabelo-d-637617285>

SKILLS

computer science



software development



problem solving



Analytical skills



Dataabases



LANGUAGES

English



isiZulu



PROFILE

Computer Science student at the University of Cape Town (UCT) with a passion for software development. Eager to contribute technical skills and dedication to innovative projects. Proficient in various platforms, languages, and embedded systems. Experienced with cutting-edge development tools and procedures. Able to effectively self-manage during independent projects, as well as collaborate as part of a productive team.

EDUCATION

Bachelor of Science in Computer Engineering and Computer Sciences, University of Cape Town

Cape Town

Feb 2018 — Present

National Senior Certificate, Gugulesizwe High School

Durban

Jan 2013 — Dec 2017

TECHNICAL SKILLS:

- Programming Languages: Proficient in MS Office, Python, Java, C, C#, C++, Kotlin, Verilog, VHDL, Assembly
- Operating Systems: Linux, Windows
- Embedded Systems: Microcontroller programming, hardware-software interfaces and Developed and operated Raspberry Pi 0W
- Algorithm Design and Analysis
- Object-Oriented Design and Programming
- Data Structures and Databases
- Computer Architecture and Digital Circuits

LEADERSHIP AND EXTRA-CURRICULAR ACTIVITIES

- Mentored grade 12 learners at Gugulesizwe Secondary School
- Participated in SAICA KZN CAMP (PMB)
- Played on the school football team at Gugulesizwe Secondary School
- Served as a member of the Student Representative Council

COMMUNICATION

- Cultivated public speaking skills through presentations on social issues and IT & Computing reports
- Gained empathetic communication skills through mobile development and design interviews

PROJECTS

2D Median Filter for Image Smoothing

The task is to implement two parallel filters for smoothing RGB colour images using programming a parallel algorithm using the Java Fork-Join library as well as benchmarking the parallel program to show an original image, applying the same image smoothed with a mean filter (middle) and with a median filter (right). A mean filter sets each pixel in the image to the average of the surrounding pixels, whereas a median filter sets each pixel to the median of the surrounding pixels. Both methods use a sliding square window of a specified width w (w is an odd number ≥ 3) that defines the neighbouring pixels that are used to calculate the mean or the median.

Building a 'video' from a large image

Using C++ To create a video, we extract pixels from a large image to produce a video that captures the movement of a much smaller window across this large image, focusing on a specific trajectory. we position a rectangular window within this large image and extract all the pixels that overlap it to produce one frame. By shifting the window's position, we generate a sequence of image frames that can be converted into a video using a python program

REFERENCES

Mrs. XD Shazi from Gugulesizwe Secondary School

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Mr Philani Kweyama

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