



Jess Koekemoer

Computer and Electronic
Engineering Graduate

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Social Network



LinkedIn Profile Page Link



GitHub Page Link



Instagram Art Page Link

Programming

MATLAB and Simulink

SQL

LaTeX

Delphi

C++

C#, C

PLC Ladder Logic

Python

HTML, CSS

PHP

JavaScript

Personal Statement

I am a graduate Computer and Electronics Engineer with ever-expanding knowledge on numerous engineering principles, and I always employ my creativity to solve any problems I encounter.

I have experience regarding several programming languages, embedded programming, and building basic circuit elements such as amplifiers, LCD display connections, and filters. I have utilized my programming skills in my final year project, regarding geographical analysis, and to perform data analysis, handle databases, make timing operations, create small games, and compose high-quality documents and reports.

I always aim to broaden my horizons and gain experience.

Working Experience

03/19 – 06/19 **Lecturer's Assistant** North West University
Responsible for helping students participating in the algorithms and optimization module, assessing their performance, and organizing various paperwork.

06/18 – 08/18 **Intern** NWU Solar Car
Participant in multidisciplinary team, made a detailed marketing plan and budget, created logos and clothing designs for the team, and improved personal presentation and leadership skills.

06/17 – 08/17 **Intern** NWU Solar Car
Participant in solar car manufacture, including supervising the robotic arm, carbon fibre moulding, sanding, designing the car's control panel layout, and cleaning of the workshop premises.

04/13 – 05/13, 04/14 – 05/14 **Volunteer** RSPCA Klerksdorp
Kept rescued animals fed, clean, and socialized; played a key role in several pet adoptions; and performed maintenance on the enclosures.

Education

2015 – 2019 **B. Eng Electronic and Computer Engineering with Honours** North West University

2014 **National Senior Certificate** Curro Klerksdorp
Matric certificate for 7 subjects, including **Information Technology** (7), **Mathematics** (6), **Natural Science** (5), and **Engineering Graphics and Design** (6).

Professional Certificates

2017 Siemens S71200 Micro Advanced Course (TIA-MICRO2)




2017 Cisco CCNA Routing and Switching

2016 Siemens S71200 Micro Course (TIA-MICRO1)

2015 Certified SolidWorks Associate (CSWA)

Jess Koekemoer

Languages

 English	● ● ● ● ●
 Afrikaans	● ● ● ● ●
 Portuguese	● ● ● ● ●

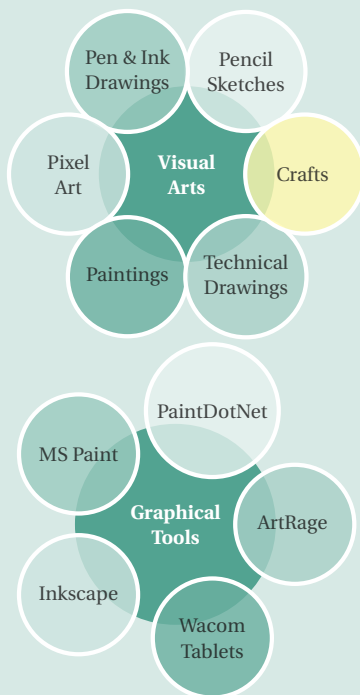
Final Year Project

My final year project involves the creation of a high-performance library for geographical analysis.

The library contains modular functions which are able to extract a path or elevation profile based on provided coordinates, digital elevation models, and calculation options.

In order to solve this complex engineering problem, extensive research and planning was conducted. After creating a detailed design for the solution, the library and an independent GUI were implemented and tested in MATLAB.

Graphical Skills



Other Files

-  Visual Art Portfolio
-  Dragon Tower Defence Game

Technical Skills

Programming C#, C++, C, Delphi, Python, HTML, CSS, SQL, JavaScript, PHP Languages

MATLAB & Simulink Data analysis, neural networks, GUIs, telecommunication simulations, geographical data analysis, and more

LaTeX (This document included)

LTSpice Circuit simulation and custom components

Multisim Circuit simulations

Cisco Packet Tracer Network simulations

Fritzing Circuit schematics and PCB design

Git Version control and management

PLC Ladder Logic Programming experience with Siemens devices

SolidWorks Mechanical parts, assemblies, and electrical routing

MS Office Excel, Word, PowerPoint, Access, Visio, Project

Graphical Skills Technical drawings, infographics, pixel art, pen and pencil drawings, and more

Awards

2014 Provincial Colours in Videogaming (Starcraft II and Osu)

2011 – 2014 High School Honours Society Member

2013 Silver for the English Olympiad

Personal Interests

Vintage Cars Owning and maintaining a vintage car, attending car shows

Visual Arts Painting, sketching, and pixel art, among others

Bird Watching Visiting bird sanctuaries and raising orphaned chicks

Videogames All genres, mostly role-playing, strategy, or adventure games

Reading Both factual and fictional books, mostly biology and fantasy genres respectively

Fishing Salt-water coastal fishing, preferably on rocky shores

References

References are available on request.