

# Jess Koekemoer

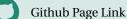
Computer and Electronic Engineering Student, Final Year

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### Social Network



LinkedIn Profile Page Link



# Programming

Matlab and Simulink

**SQL** 

LaTeX

Delphi

© C++

♦ C#, C

 PLC Ladder Logic

Python

THIL, CSS

♠ PHP

JavaScript

### Other Files

Visual Art Portfolio

Dragon Tower Defence Game

#### **Personal Statement**

I am a final year Computer and Electronics Engineering Student with background knowledge of numerous engineering processes and ethics.

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 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 –	Lecturer's Assistant	North West University
06/19	Responsible for helping students particip	pating in the al-
	gorithms and optimization module, assessing their perfor-	
	mance, and organizing various paperwork.	

06/18 – 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 — Intern NWU Solar Car
08/17 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 , **Volunteer**04/14 – 05/14 Kept rescued animals fed, clean, and socialized; played a key role in several pet adoptions; and performed maintenance on

the enclosures.

#### **Education**

2017

2015

2015 – 2019

B. Eng Electronic and Computer
Engineering with Honours
(Currently in final year of completion)

North West University

National Senior Certificate

Matric certificate for 7 subjects, including Information Technology (7), Mathematics (6), Natural Science (5), and Engineering Graphics and Design (6).

### **Professional Certificates**

Cisco CCNA Routing and Switching
 Siemens S71200 Micro Advanced Course (TIA-MICRO2)

Certified SolidWorks Associate (CSWA)

Siemens S71200 Micro Course (TIA-MICRO1)

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# Languages

**English** Afrikaans Portuguese 0 0 0 0

## Final Year Project -

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

The library must contain 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 had to be conducted. After a detailed design was created for the solution, the first versions of the library and an independent GUI were created in Matlab.

# **Graphical Skills**



#### **Technical Skills**

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

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

LaTeX (This document included)

**LTSpice** Circuit simulation and custom components

Multisim Circuit simulations

Cisco Packet Network simulations

Tracer

Fritzing Circuit schematics and PCB design

Git Version control and management

PLC Ladder Programming experience with Siemens devices

Logic

**SolidWorks** Mechanical parts, assemblies, and electrical routing

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

Graphical Technical drawings, pixel art, pen and pencil sketches, and Skills

more

#### **Awards**

2014 Provincial Colours in Videogaming (Starcraft II and Osu)

2011 - 2014High 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

Both factual and fictional books, mostly biology and fantasy Reading

genres respectively

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

Visiting bird sanctuaries, observing avian behaviour, and rais-Bird

ing orphaned chicks Watching

**Fishing** Salt-water coastal fishing, preferably on rocky shores

#### References

References are available on request.