

# Werner Bisschoff

## SOFTWARE ENGINEER

✉ [wbisschoff13@gmail.com](mailto:wbisschoff13@gmail.com) | [G](#) [wbisschoff13](#) | [in](#) [wbisschoff13](#)

## Summary

Versatile Computer and Electronic Engineering graduate who is passionate about software technologies. Interested in building exciting and challenging products effectively and efficiently. Always willing to learn new technologies and to adapt to unfamiliar situations.

## Education

### North-West University

*Potchefstroom*

B.ENG. IN COMPUTER AND ELECTRONIC ENGINEERING

*Dec. 2019*

- Final year project included the development of an *Android* application to emulate an NFC payment system based on the ISO 14443 protocol, the architecting of the communication protocol, and the design of an algorithm to send and receive encoded data
- Utilised object oriented programming to create a tower defense game using *Qt C++*, including pathfinding and network communication with the TCP/IP protocol
- Analysed data from large spreadsheets by use of *Python*, *Pandas*, and *Jupyter* notebook, including multi-processing, data cleaning, linear regression, correlation and basic implementation of machine learning with *Sklearn*
- Developed microcontroller logic with C and the STM32 system
- Implemented a PID controller with an *Arduino* to control a DC motor's voltage and speed
- Compiled effective, consistent reports with  $\text{\LaTeX}$

## Skills

**Back-end** Django, Django Rest Framework, REST API

**Front-end** React, JavaScript, HTML5, CSS, TailwindCSS

**Programming** Python, Julia, Jupyter Notebook, C, C++, Borland C++ Builder, Version Control

**Platforms** WSL, Linux, Windows, Docker

**Languages** English, Afrikaans

## Experience

### Expandage

*Remote*

FULL STACK DEVELOPER

*Nov 2020 – Dec 2020*

- Architected a full stack content management system to allow viewing and editing of client information and status
- Developed a REST API with *Python*, *Django* and *Django Rest Framework*
- Developed an intuitive front end user interface using *CSS*, *HTML*, *TailwindCSS*, *JavaScript* and *ReactJS*
- Utilised *Visual Studio Code*, *Parcel.js* and *SSH*

### North-West University

*Potchefstroom*

JUNIOR LECTURER

*Feb 2020 – Dec 2020*

- Lecturer for *Introduction to Programming* for first year IT students
- Taught basic *Python* and C++ programming to newcomers with various backgrounds
- Created tutorial videos and content slides
- Managed student information and marks
- Collaborated with co-lecturers and tutors to adapt to remote learning

### Jurumani Solutions

*Midrand*

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*Nov 2018 – Dec 2018*

- Developed a *Python* solution to extract data from multiple types of invoices and convert into JSON
- Developed a cloud-based service using *Python*, *Flask*, *MySQL* and *AWS S3* to be able to easily and remotely send pre-configured print jobs to a network-connected printer

### Nanoteq

*Centurion*

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*Jun 2018 – Jul 2018*

- Supported software development and testing processes
- Added new cryptographic functionality
- Added new visual components with *C++ Builder*