

## TRISTAN SOLDENHOFF CURRICULUM VITAE

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### INFORMATION

Address:	26 Ash Street, Salford, Manchester, UK, M65NA
Cell:	07754693120
Email:	<a href="mailto:tsoldenhoff@gmail.com">tsoldenhoff@gmail.com</a>
ID number:	940510 5311 080
Passport:	South African, Swiss
Gender:	Male
Marital Satus:	Single

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Please note these are relevant courses taken from Electrical Engineering at Stellenbosch University. However, please note that the undergraduate degree was incomplete.

### University Courses

- C – Introductory coding including pointers, object oriented programming, bubble sorting methods etc.
  - Java – Programmed a game incorporating equations of physics amongst many objects including player object.
  - Assembly – Coding registers of microcontroller (Renesas RL78).
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### ONLINE COURSES

Please see attachment for certificates of completion to the following courses.

#### Udemy - The Python Mega Course: Build 10 Real World Applications:

- **Application 1: Building interactive English dictionary.** This program uses a JSON file to store the data. The program also uses SequenceMatcher (difflib) to help find the correct entry if the word has been spelt incorrectly.
- **Application 2: Volcano & Population Web Map.** The purpose of this program is to display all volcano sites in the USA. All relevant data is stored in a txt file where Pandas is used to extract the longitude and latitude coordinates and plot them on a world map created by Folium.
- **Application 3: Personal Website with Python.** This is a basic website using Flask, HTML and CSS which run in a python virtual environment. Git is used to deploy the website on a Heroku server. Here is the link to the website <http://tristan-soldenhoff.herokuapp.com/>
- **Application 4: Bookshop Database App.** This program is a simple bookstore program consisting of a GUI built with Tkinter and a database (SQLite). The program can add, delete and update and search entries. The program has also been made as a standalone executable file.
- **Application 5: Feel Good Mobile App.** This is a simple app displaying quotes from famous people depending on which category of emotion you are currently feeling (happy, sad or unloved). The program uses Kivy for the design aspect of the app. The app also contains a login/sign-up feature where the login details are stored in a json file.

- **Application 6: Build A Webcam Motion Detector.** This application detects motion off the camera of your laptop using the OpenCV library. The program also captures the date and time in which the object was detected and stores it in a csv file. The times captured when motion is detected are then translated into a graph using the Bokeh library.
- **Application 7: Real Estate Web Scraper.** This program extracts basic information (rent per month) regarding properties for rent from a website called gumtree. The program extracts code content using the requests library and the desired information is then retrieved using the beautiful soup python package.
- **Application 8: Interactive Data Dashboard.** This is a simple program which extracts stock prices of Google from Yahoo finance which is then displayed with a candlestick chart. The application is also embedded in a live website, please see link: <http://tristanbokeh.herokuapp.com> (select the “plot” tab from the menu bar to see the candlestick chart). Pandas datareader library is used to extract stock market information which is then visualised using Bokeh. Flask, CSS and HTML files were used to design the basic layout of the website which was then published in a Heroku server.

**Application 9: Database Web App.**

**Application 10: Geocoder Web App.**

This course covers a wide range of libraries such as: Pandas, Numpy, OpenCV, Requests, SQLAlchemy, BeautifulSoup, Bokeh etc. I managed to learn a lot from this course because it covers real world applications.

#### **Codecademy – Linear Data Structures:**

- This course covers the implementation of nodes, linked lists, stacks and queues.

#### **Codecademy – Complex Data Structures:**

- This course covers implementation of hash maps, trees, heaps and graphs.
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# CERTIFICATE OF COMPLETION

**Tristan\_Soldenhoff**

successfully completed the  
**Learn Complex Data Structures Course**



17/02/2020  
Date of Issuance

  
Founder & CEO



Scan to verify



# CERTIFICATE OF COMPLETION

**Tristan\_Soldenhoff**

successfully completed the  
**Linear Data Structures Course**



31/01/2020  
Date of Issuance

  
Founder & CEO



Scan to verify

# ***Certificate of Completion***

***This is to certify that **Tristan Soldenhoff**  
successfully completed 25.5 total hours of **The  
Python Mega Course: Build 10 Real World  
Applications** online course on Aug. 10, 2020***

*Ardit Sulce*  
Ardit Sulce, Instructor

&  
 **Udemy**

Certificate no: UC-e700b93-d120-4a93-8199-8f528af8551d  
Certificate url: [udemy.my/UC-e700b93-d120-4a93-8199-8f528af8551d](https://udemy.my/UC-e700b93-d120-4a93-8199-8f528af8551d)

#BeAble