

# Tlotliso Jonas

## Mechanical And Mechatronic Engineering Student

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[tlotlisojonas.github.io](https://github.com/tlotlisojonas)



## Work Experience

### Software Developer Intern

1 July 2019 - Present

#### Visual Fusion! (PTY) LTD

The duties involved the use of zoho creator to build customer portal interface, API integration in python for data processing and transferring data between different web applications.

### Embedded Systems 1 Tutor

March 2019 - June 2019

#### University of Cape Town

Tutoring embedded systems 1 course to engineering students. The course involves digital electronics of logic gates and c programming of the STM32FOC651 micro controller and I tutor the c programming part of the course

### Engineering Student Intern

November 2018 - February 2019

#### UCT ROBOTICS AND AGENTS RESEARCH LAB

The project was teamwork and I was responsible for designing (using SolidWorks) and building of the mechanical structure of the dual arm scara robot. The project involved investigating the comparison of different actuators such as pneumatic cylinders, air muscles, stepper motors, dc motors and servo motors for precision control of the end effector.

### Making Waves Project Manager

July 2018 - November 2018

#### University Of Cape Town

Responsible for managing "Making Waves" Project

#### Key Contributions:

- Coordinating regular meetings
- Assigning work to team members
- Ensuring that team members do their work as expected
- Ensuring that the team meets all the deadline
- Managing the team resources
- Ensure efficient communications among all stakeholders
- Accepting and analysing change requests then making team decisions

### Academic Representative

February 2018 - November 2018

#### KUTLWANONG

Responsible for keeping society members motivated in terms of their academics and help them with anything relating to their academics.

## Summary

I am currently at UCT doing my final year in B.SC (Eng) Mechanical and Mechatronic Engineering. On my part time I develop small personal web pages. I am passionate about coding and have interest in artificial intelligence solutions.

## Community Service

### High School Tutoring

Tutoring Bluegubosch High School Matric Learners Mathematics, Physical Sciences, Life Sciences and Geography in 2017.

## Skills

### Programming Languages:



- Python + Numpy
- Deluge Script (Zoho Creator)
- C
- JavaScript
- MySQL
- PHP
- CSS
- HTML

### Engineering



- Robotics
- Fitting and turning
- Pneumatics
- CNC
- Basic hand skills
- Meteorology

### Engineering Computer Programs:



- LabView
- SolidWorks

Engineering Student Intern 1 December 2017 - 14 December 2017

## Cape Peninsula University of Technology

Training in Welding, Fitting and Turning, CNC Programming, Metrology, Pneumatics, Basic Hand Skills And Robotics

Floor Representative

February 2017 - November 2017

## KOPANO RESIDENCE

### Key Contributions:

- Assisted my floor mates with their daily basic residence needs
- Responsible for collection and distribution of study snacks
- Keeping and monitoring the floor cleaning equipment

## University of Cape Town Completed Courses

### Third Year: 2018 Courses

#### Course Description

1. Embedded Systems 1
2. Energy Conversion and Utilization
3. Mechatronics Design 1
4. Project Management
5. Mechanics of Solids 2
6. Dynamics 2
7. Thermofluids 2
8. Computer and Intergrated Manufacture and Robotics
9. Professional Communication
10. Machine Element Design 2
11. Machine Element Design 3
12. Statistics for Engineers

### Second Year: 2017 Courses

#### Course Description

1. Introduction to Programming
2. Introduction to Electrical Engineering
3. Introduction to Electronic Engineering
4. Vector Calculus for Engineers
5. Linear Algebra And Deferential Equations for Engineers
6. Thermofluids 1
7. Dynamics 1
8. Mechanics of Solids 1
9. Materials Science in Engineering
10. Machine Element Design 1

## Microsoft Office



- Microsoft Excel
- Microsoft Word
- Microsoft PowerPoint

## Achivements

### 2019:

- The Pitch UCT Competition  
Winners in the Ideation Category

### 2018:

- KPMG Innovation And  
Collaboration Challenge 2019  
National Finalist

### 2015:

- Free State Top 100 Provincial  
Awards
- Bluegumbosch Secondary Top  
Learner Awards
- Kutlwanong Maths And Physics  
Awards

### 2014:

- Bluegumbosch Secondary Top  
Learner Awards
- Kutlwanong Grade 11 Top Learner  
Award

### 2013:

- Bluegumbosch Secondary Top  
Learner Awards
- Kutlwanong Grade 10 Top Learner  
Award

## Languages

- Sesotho And English.

## Interest And Hobbies

- **Programming:** I enjoy building small c and python programs and develop small websites.
- **Chess:** I love playing chess with friends and I usually participate in chess tournaments.
- **Gym:** I am into physical fitness and gym is part of my weekly routine.
- **Music:** I enjoy listening to good music.