

# TARGO DOVE - Curriculum Vitae

Residence: The Circuits - 1228 Prospect Street, Hatfield, Pretoria  
Cell: 0827230613 - Email: TargoDove@gmail.com - LinkedIn: linkedin.com/in/targodove/

---

## PROFESSIONAL SUMMARY

Ambitious and creative Electronic Engineering graduate and Computer Science student with a passion for programming, who continuously exceeds both personal goals and others' expectations. Excellent interpersonal and communication abilities and possesses a wide range of technical skills. Any lack in experience is more than made up for with an eagerness to impress and desire to learn as much as possible.

My experience is not only limited to university projects but extends into the business world as well. Since having an idea in second year, I have created a team and company, won support and funding, developed, tested and launched an app along with a supporting marketing campaign. Most importantly, I have learnt an incredible amount about the business world and I am continuing to learn more every day.

My passion for learning has resulted in the collection of a wide range of skills. My engineering skills range from programming, simulating, 3D modelling, PCB design to skills as wide as expertise in engineering manufacturing through being part of the internationally competing TuksBaja team. I have taken a number of additional programming modules on top of my degree and pursued a number of side projects. I decided to take a Computer Science degree as well to further my programming knowledge.

From my numerous side projects and startup, I have experience managing small teams, pitching, negotiating, drafting business plans, marketing and strategising. I am one of the founding members of the Tuks Entrepreneurship Group and helped with the organisation of the Entrepreneurship Week.

I am highly motivated and self driven. My drive comes from the big dreams and goals I have for myself and my enthusiasm is a result of my love for complex problems. Engineering isn't a field I picked, it is part of who I am. I look forward to gaining experience in the work environment and gaining many new skills. I'm a quick study and a pleasure to work with.

---

## EXPERIENCE

**13 January 2021 - 10 March 2021**

**5DT** - 25A De Havilland Cres, Perseus Park, Pretoria, 0020, South Africa

- Designed and created a small rotary encoder to replace the current commercially available encoder.
- The final encoder was more than 8 times more sensitive and cheaper than the commercially available encoder.
- A custom single-wire protocol was implemented to improve data transmission accuracy.
- The project involved 3D design using Solidworks, 3D printing and PCB design using PADS Professional software

Reference:

- Christof Rademeyer (Electronic Design Manager)  
Tel: +27 12 349 2690  
Email: christof.rademeyer@5dt.com

**10 January 2019 - 23 January 2019**

**Hensoldt Optronics** - Nellmapius Drive, Irene, Centurion, South Africa

- Introduced to Company Policy, Procedures and Standards
- Performed Design Verification on an existing prototype PLC
- Tested high current H-Bridge and proposed new design improvements
- Obsolescence checking
- Tested 12-24V high current switch mode supply and verified operation and design

Reference:

- Eben du Plessis (HOD: Electronical and Software Dept)  
Tel: +27 12 674 0101  
Email: eben.duplessis@hensoldt.net

**3 December 2018 - 14 December 2018**

**Denel Aeronautics** - Atlas Rd, Bonaero Park, Kempton Park, South Africa

- Research and partial implementation of communication backbone networks with Python and Matlab. This involved using TCP/IP, messaging protocols such as AMQP, MQTT, and STOMP, and the Rabbit MQ message broker.
- Different communication links were implemented between two computers on a local network to allow the exchange of data between Simulink and Matlab instances on each computer.
- Research into supercomputer architectures and high bandwidth networks

Reference:

- Robert Jannings (Airborne Systems Manager Rooivalk)  
Tel: +27 11 927 4482  
Email: Rob.jannings@denel.co.za

**3 July 2017 - 14 July 2017**

**Nanoteq** - 269 Von Willich Avenue, Centurion, South Africa

- Performed manual extensive testing of the SPE100 voice and fax product.
- Designed and programmed automated test scripts in the Android development environment.

Reference:

- Pieter van Zyl (Senior Developer)  
Mobile: +27 82 944 0487  
Email: [pvz@nanoteq.com](mailto:pvz@nanoteq.com)

**9 February 2017 - February 2018**

**Brighter Futures** - 20 Kruger St, Maboneng, Johannesburg, South Africa

- Tutored and taught high school children maths at Curro and Sutherland High Schools

Reference:

- Joanne Brink  
Mobile: +2772 728 5877  
Email: [joanne@brighterfuture.co.za](mailto:joanne@brighterfuture.co.za)

---

## NOTABLE PROJECTS

**Novatech Developers** - Startup behind the 'WeMingle' app (Been renamed to 'WeNetwork')

- Since I began working on my idea in 2016, a team (and company) has been formed, two separate competitions have been won (which provided funding and support), an app has been developed and launched along with a marketing campaign.
- The launch (beta test) was a great success with the app gaining almost 900 users in just 3 weeks.
- The new WeNetwork app was supposed to be launched in early 2020. COVID-19 however made this impossible.

**Final Year Project** - Final Year Electronic Engineering Project at the University of Pretoria

- The project consists of the design and development of a small, remote controlled, Two-Wheeled Inverted Pendulum robot that is equipped with a self-righting mechanism. This consists of the following:
  - The design and simulation of the robot and control algorithms.
  - Sensorless control of BLDC motors (using field-orientated control (FOC))
  - Microcontroller programming
  - Design and development of a PCB that is able to handle up to 120A of current.
  - Implementation of wireless control from smartphone.
  - Design and development of reduction gearboxes.
  - Design and development of housing.
  - Full system integration and testing.

---

## EDUCATION

- 2014:           **High School Diploma (IEB):**  
Clifton College - 102 Lambert Road, Durban, 4001, South Africa  
I took:  
Maths Core (94%), Advanced Programme Maths (88%), English (78%), Afrikaans (77%), Life Orientation (76%), Physical Science (85%), Accounting (84%) and Information Technology (96%) (Computers and Programming)
- 2019:           **B.Eng Electronic Engineering**  
University of Pretoria - Lynnwood Road, Hatfield, Pretoria, 0002, Gauteng, South Africa
- Current:       **BSc Computer Science**  
University of Pretoria - Lynnwood Road, Hatfield, Pretoria, 0002, Gauteng, South Africa
- 

## ORGANIZATIONS

### **Golden Key International Honours Society Member**

Golden Key is the world's largest collegiate honor society. Membership into the Society is by invitation only and applies to the top 15% of college and university sophomores, juniors and seniors, as well as top-performing graduate students in all fields of study, based solely on their academic achievements.

---

## HONOURS & AWARDS

### **GradStar Top 100 - (September 2017)**

GradStar is a programme that recognises the Top 100 students across South Africa based on leadership qualities and readiness for the workplace. All varsity career centres across the country are contacted to market the GradStar programme to their students, ensuring representation from across the country and from all disciplines. Students go through a rigorous 4 phase judging process, culminating in a day of workshops hosted by potential employers (sponsors).

Read more at <http://gradstar.co.za>

### **Business Innovation Camp First Place Winner - (August 2016)**

The Innovation Camp was hosted by the EBIT Faculty of the University of Pretoria and sponsored by Buzznovation and Coca Cola.

Teams entered with a business idea in mind and were given 15 hours to prepare documents detailing the Business Proposal, Product Design and Socio-economic Impact as well as a 3 minute presentation. After the 15 hours were up, each team was given 3 minutes to pitch their idea to a panel of 6 experts.

The winners were selected based on the feasibility of the idea and time to market.

### **TechLaunchPad Winner - (March 2018)**

TechLaunchPad is a new competition run by TuksNovation (a non-profit company within the University of Pretoria) that aims to provide business support services to students that have innovative technologies.

Teams, made up of students throughout the university, presented their tech related ideas online to TuksNovation. The top 30 teams were invited to take part in round 1 of the competition where all students were provided coaching on pitching and selling an idea. Each team was then given 10 minutes to pitch their idea to a panel of judges made up of industry experts. The top 10 teams were invited to round two where they were taught about business models and business plans. Each team was then required to draw up a detailed business plan and was given 10 minutes to pitch their idea (focussed on the business proposition).

The top 3 teams were awarded a place in the university incubator, full MVP development, funding and the University's support.

---

## SKILLS

(I have experience with the following)

Project Management:

- Led a team of developers and designers in the development of a mobile app

Coding:

- C, C++, Python, Assembly, Javascript, CSS, Typescript, PHP, HTML, Java, R, SQL
- JSON, Rest API development
- GIT version control

Electronics:

- Circuit Simulation and PCB Design
- Embedded Programming (ADC, GPIO, DMA, Interrupts, Timers/Counters)
- Power electronics and Control Systems
- VHDL
- 3D Modelling

Platforms:

- STM32, dsPIC, PIC32, Arduino

Technologies/Protocols:

- FreeRTOS
- UART, I2C, 1-Wire, SPI, PWM

Leadership:

- Project Manager for app development Project
- Team Leader for university projects
- Prefect in Matric

Programs:

- Matlab, Simulink, PSpice, LTSpice, Orcad, MPLab, FEKO, MultiSim, Octave, Overleaf (Latex), Solidworks, Altium Designer, PADS Professional, EasyEDA, MPLab, MCUXpresso

Manufacturing:

- Worked with Lathes and Mills
- Have welding experience

Other Attributes:

- Pays attention to detail but from bigger picture perspective
- Great under Pressure
- Problem Solver
- Excellent communication skills
- Critical Thinker