PRIVILEGE C. TAVAGWISA

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SUMMARY

I have eleven years' experience in the IT tertiary education sector providing teaching and learning support with transferable skills from my data science bootcamp. I am also an ECSA registered candidate engineer with experience in the embedded design and implementation industry which involved construction, testing and debugging of prototypes and document management (quoting, invoicing, bill of materials and manuals). I possess Level 1 PLC certification from Protraining and Wonderware.

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- SKILLS
- Embedded design using STMicroelectronics', Atmel AVRs and PICs in C, C++, and Assembler
- Proficient in Python programming
- Document management (quoting, invoicing, bill of materials and manuals)
- Interpretation and implementation of circuit schematics
- PLC programming
- IoT development using ThingWorx
- Version Control using Git
- Data visualization using Tableau, Pandas, Matplotlib, Numpy

- Construction, testing and debugging of prototypes
- Repair and soldering of electronic boards to component level
- Good report writing, oral and written communication skills
- SQL
- Machine learning using TensorFlow, SciKit Learn
- Interpreting sensor data
- Attention to detail
- Programming TeachMover arms
- Prototyping using Arduino, Raspberry Pi

EDUCATION

Master's in industrial engineering | Stellenbosch University

FEBRUARY 2024 - ONGOING

Research on creating a Data Valuation framework for Industry-University Collaborations

Data Science Bootcamp |HyperionDev

JANUARY 2020– JANUARY 2022

Areas Studied: Python, Data Visualisation and Machine Learning. Link for my <u>portfolio</u> and <u>website</u> is here

Bachelor of Engineering (Honours) In Electronic Engineering | National

University of Science and Technology

AUGUST 2005 - MAY 2011

Areas Studied: Professional Engineering Management, Industrial Control, Power Electronics, Programming Languages, Communication and Network Engineering, Microcontroller Systems, Fundamentals of Computer Architecture

Project Research: Electronic Maximum Power Point Tracker Degree Classification: 2.2

Certificate of Competency in Soft System Methodologies |University of Witwatersrand

OCTOBER 2017- JANUARY 2018

Areas Studied: Systems definition and concepts, System hierarchies, Systems environment, Boundaries, Root definition, System boundaries, Systems thinking, Systems practice, Systems mapping, Rich Picture analysis, Total Quality Management

Certificate in Management of Technology |University of Witwatersrand

OCTOBER 2017– JANUARY 2018

A course on how to apply specialist knowledge in the techniques involved in the management of technology, marketing, product development, technological S-curves, technology discontinuities and life cycles.

Certificate in Financial Management for Engineering Organisations |University of Witwatersrand

OCTOBER 2017- JANUARY 2018

A course on how to apply capital investment decision making techniques in the work environment, how to determine the cost of capital and optimal capital structure for organisations

Certificate in Strategic Management I Engineering |University of Witwatersrand OCTOBER 2017– JANUARY 2018

A course on the implementation of the strategy through operational plans, management of innovation and change leadership. It focused as well on the integration of technology in management systems, ethics and creating space for innovation.

E EXPERIENCE

Lecturer | Belgium Campus ITVersity, Pretoria

JULY 2013 – PRESENT

- Mentoring and Lecturing Internet of Things (IoT), Operations Research, Internet Systems, Mathematics, Statistics and Hardware Programming
- Supervising final year students' projects
- Evaluation, assessment and grading of performance.
- Developing new course material and assessments
- Assisting with preparation and coordination of functions and events (open, career days)

Engineering Lecturer | Hartland College, Pretoria

JANUARY 2013 - JUNE 2013

• Lecturing Industrial Electronics N2 to N5, Electrotechnics N2 to N5, Engineering Science N2 and Engineering Drawing N2

Engineering Intern | Electronic Products Design, Centurion

FEBRUARY 2009 – OCTOBER 2010

- Prototype construction using multi-processor systems
- Testing and debugging using industry standards
- Sales and Technical support
- Define and document requirements and tests
- Participate and support in a multidisciplinary team
- Manage outsourcing of electronic modules
- Transfer knowledge and interface with lead designers and engineers