Alfred Shikongo Johannes

[alfredchicco@gmail.com] [LinkedIn] [Web-Portfolio] [Github] [+264 81 236 5554]

Professional Summary

Soon to be Electronics & Computer Engineering graduate (Sep. 2025) with a passion for building, teaching, and designing. Real world experience in the marine sector, automation sector, good distribution and data collection. With technical experience in software development, digital systems design, maintenance and development, plus cybersecurity knowledge. Strong background in programming, embedded systems, and AI models, with a proven track record of developing machine learning models, hardware prototypes, and real-world software applications.

Work Experience

Intern Automation Tech.	:	**EcoProjects**	| NOV 2024 – FEB 2025
Intern Electronics Tech.	:	**Radio Electronics Pty Ltd.**	| NOV 2023 – JAN 2024
Student Assistant Lecturer	:	**University of Namibia**	| MAR 2023 – NOV 2023
Data Collector	:	**Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)**	| MAY 2021
Goods Distributor	:	**Janeko Investment**	| DEC 2020 – FEB 2021

Skills

(more skills on web portfolio)

Category	Skills
Programming Languages	C, Python, C#, C++, HTML, Javascript, VHDL, Assembly
Software Development	Full Stack Development, UI/UX Design, Mobile App Development, Software Deployment
Embedded Systems	Microcontroller Programming (Atmega328, Arduino, FPGA), Sensor Integrations, Robotics
Robotics & Automation	Arduino system development, Industrial Automation, Embedded Systems
AI & Machine Learning	CNN, SVM, RVM, FL-DenseNet, TensorFlow, PyTorch, Model Evaluation
System Design & Analysis	Debugging, Testing, Technical Documentation
Hardware Prototyping	PCB Design, Circuit Analysis, Digital Electronics, 3D Printing
Teaching & Coaching	Electronics concepts, Computer science concepts
Tools	Matlab, OpenScad, Arduino IDE, Onshape, KiCad, Fritzing, Android studio, Microsoft visual studio, Adobe XD, Figma, FreeCAD

Education

- **BSc in Electronics & Computer Engineering** | UNAM Engineering Campus | [SEPTEMBER 2025]

References

EcoProjects Manager	: +264 (0) 61 424 201 / 88 640 234 / 81 122 1690 / tean@ecoprojects.com.na
Radio Electronics (Pty) Ltd. Manager	: +264 81 124 2216 / +264 (0) 64 207 483 / fdt@re.com.n
Associate Dean JEDS UNAM Eng. campus	: +264 65 232 4022
Janeko Investment CC (Previous senior driver)	: +264812923554 / salisalemnekomba@gmail.com

JOHANNES ALFRED

ELECTRONIC & COMPUTER ENGINEER

CONTACT LINKS

LinkedIn |
alfredchicco@gmail.com |
Web-Portfolio |
Github |

SKILLS

- Digital systems design & Development
- Full stack software development
- Robotics and automation
- CAD designing
- Tutoring (Computer Science)
- Embedded Systems
- Machine learning & AI

LANGUAGES

- English (Fluent)
- Afrikaans (Intermediate)
- Oshiwambo (Fluent)

PROFILE

Electronics and Computer engineering graduate.
Real world experience in software development, digital systems design and development, marine telecommunications and systems. Plus, automation experience and Machine learning experience.

With a love of tutoring computer science concepts.

EDUCATION

BSc. Electronics and Computer Engineering

Jose Eduardo Dos Santos Campus, Unam

Graduated: September 2025

- Relevant Courses: Software Development, Digital systems design and development.
- GPA: 65%

WORK EXPERIENCE

- EcoProjects automation
  Nov.2024–Feb.2025
- Radio Electronics Pty Ltd
  Nov.2023–Jan.2024
- University of Namibia
  Mar.2023-Nov2023
- GIZ data collector
  May 2021
- Janeko Investment
  Dec.2020-Feb.2021

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Johannes Shikongo Alfred

Electronic and Computer Engineering graduate

Contact: +264 81 236 5554 | ALFREDCHICCO@GMAIL.COM

Resume | LinkedIn | alfredchicco@gmail.com | Web-Portfolio | Github

Professional Summary

Electronics and Computer Engineering graduate with a 65% average.
Real world experience in the marine sector, automation sector, good distribution and data collection. With technical experience in software development, digital systems design, maintenance and development, plus cybersecurity knowledge. Strong background in **programming, embedded systems, and AI models**, with a proven track record of developing machine learning models, hardware prototypes, and real-world software applications.

Current goal to enhance knowledge and expertise in cybersecurity and machine learning systems.

Skills

Category	Skills
Programming Languages	C, Python, C#, HTML, VHDL, Assembly, **C++, Javascript**
Software Development	Full Stack Development, UI/UX Design, Software Deployment, NodeJS, Mobile App Development, **Git**
Machine Learning & AI	CNN, SVM, RVM, FL-DenseNet, Model Evaluation, **TensorFlow, PyTorch**
Embedded Systems	Microcontroller Programming (Atmega328, Arduino, FPGA), Sensor Integration
System Analysis & Design	Debugging, Testing, Technical Documentation
Hardware Prototyping	PCB Design, Circuit analysis and building, **3D Printing, CAD Tools (OpensCad, FreeCad)**
Robotics & Automation	**Industrial Automation Basics (actuators and PLC experience)**
Tutoring	**Computer science concepts, computer programming (python, HTML, Javascript)**

Education

BSc in Electronics & Computer Engineering
José Eduardo dos Santos UNAM Engineering Campus | [September 2025]

Work Experience

Intern: Electronic automation technician

EcoProjects Automation | November 2024 – February 2025

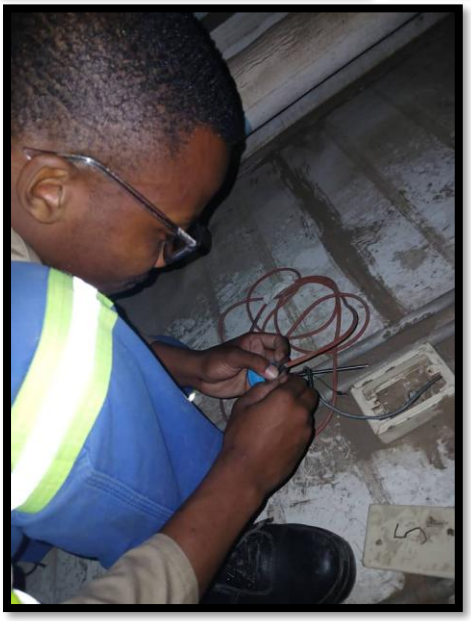
I worked on industrial automation and energy solutions, with a focus on PLC (Allen Bradley, Modicon) and SCADA/HMI systems. We designed, commissioned and assembled control systems for mining, water treatment, and energy sectors. I also worked on integrating field devices (sensors, actuators) and telemetry networks.

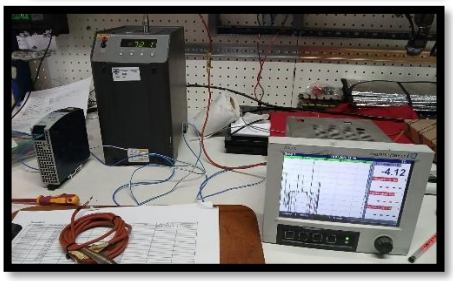
My role involved collaborating with multidisciplinary teams to design. I also honed skills in process instrumentation (flowmeters, pressure transmitters), ensuring seamless execution of large-scale projects through troubleshooting and project management.

Images:









Intern: Electronic marine and communication Technician

Radio Electronics Pty Ltd. | November 2023 – January 2024

- Assisted in troubleshooting and maintaining marine electronic systems.
- Implemented new systems for communication.
- Implemented wireless communication for inland clients
- Troubleshooting networks and wireless communication [inland and sea].
- Gained hands-on experience in hardware integration and debugging.

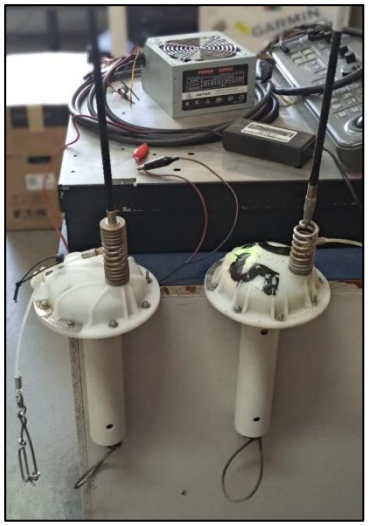
I worked on marine electronics and systems, and marine satellite communications systems. I contributed to radio network engineering, deploying VHF repeaters and digital radio networks (Motorola MotoTrbo™, TETRA) for mining, government, and corporate clients.

Collaborated on IoT-enabled automation for maritime systems and wireless broadband solutions (Blue Air Fibre). My role involved satellite communications (Inmarsat services). While also assiting with installation, and troubleshooting wireless networks for inland and sea clients.

I honed hands-on skills in electronics repair, system troubleshooting, ensuring seamless execution of projects across Namibia's coastal and inland regions.

Images




Student lecture assistant (Software & Hardware university modules)

University of Namibia | March 2023 – November 2023

- Provided academic support to students in software development and digital electronics modules.
- Assisted students with
  Programming languages (C, python, HTML, JavaScript, PHP, react native framwork)
  Microcontroller programming (Assembly)
  Digital circuits design, development and understanding
  System UI/UX design and system debugging.
- Supervised CRUD applications and evaluated them too.

The modules: Computer programming 1, Computer programming 2, Digital Electronics

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Data Collector

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) | May 2021

- Collected and analysed data for the GIZ Namibian body.
- We were tasked with collecting data from the Namibian citizens from different locations; Ongwediva, Oshakati, Ondangwa.
- Maintained data integrity and accuracy in large datasets.

Goods Distributor Assistant

Janeko Investment CC | December 2020 – February 2021

- Assisted in inventory management and logistics.
- Ensured accurate stock handling and delivery processes.

Projects & Technical Experience

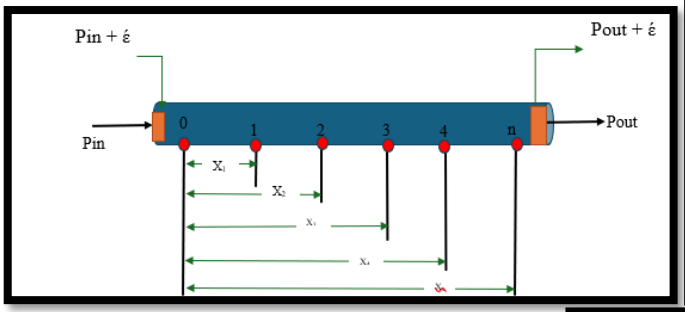
Machine Learning and Artificial Intelligence

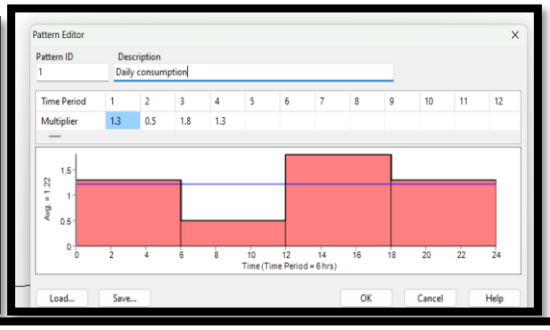
1. Water Leak Detection Using CNN, SVM, RVM, and FL-DenseNet

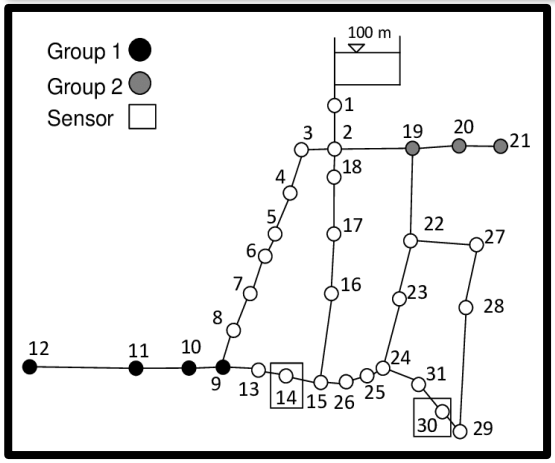
Problem: Delay in water leak detection for large water distribution systems
Proposed solution: Use of data collection and machine learning system to detect leak, and position.

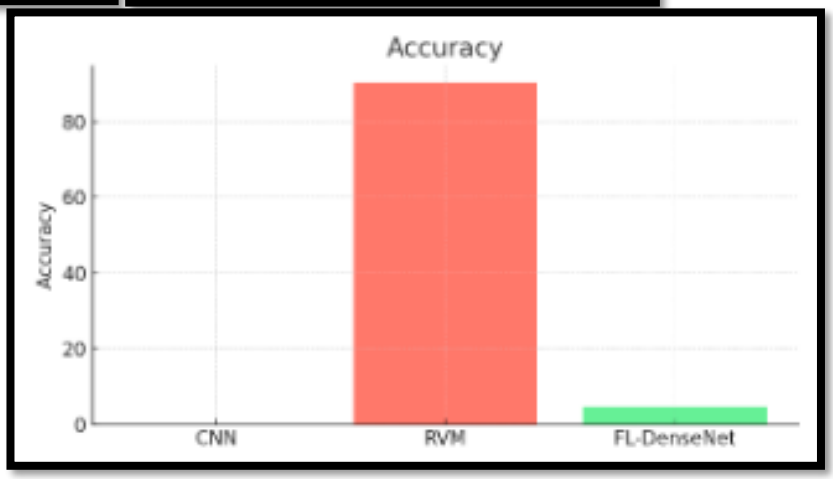
- Developed a **CNN-based model** for water leak detection using structured link and node data.
- Implemented an **FL-DenseNet model** for multi-class classification.
- Trained and evaluated models using **F1 Score, Accuracy, Precision, Recall, AUC-ROC, AUC-PR, Log Loss, and MCC**.
- Designed **graphs for training/validation metrics** and confusion matrix analysis.
- Integrated **SVM and RVM models** for comparison against CNN-based approaches.

Work source: Github









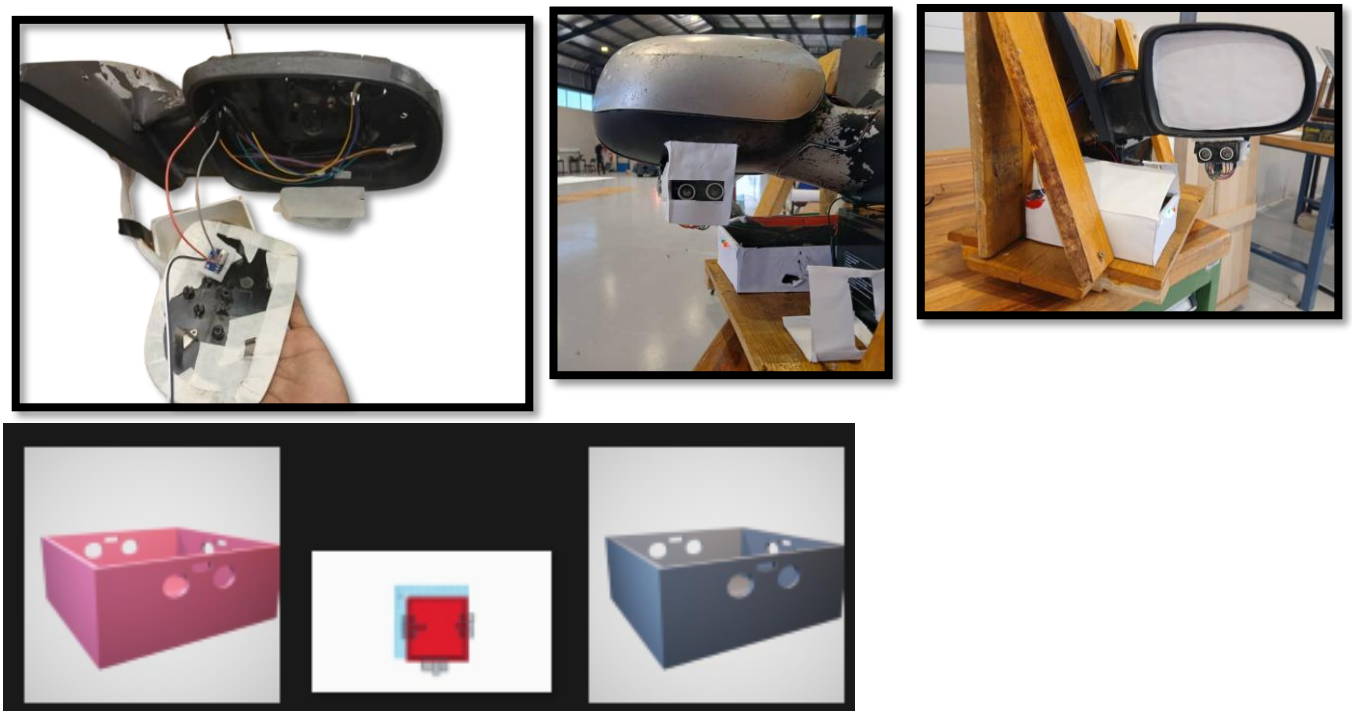
Embedded Systems & IoT Projects

1. Theft Detection & Deterrence System for Vehicles

Problem: Car mirrors and badges being stolen with ease
Proposed solution: Real-time system for monitoring car parts and real-time alert.

- Designed a system to detect and prevent car mirror theft using **MPU6050 sensor**.
- Integrated **3 ultrasonic sensors, LEDs, an MPU6050, and a GSM SIM800L module**.
- Developed a custom **PCB for Atmega328 microcontroller**.
- Implemented **real-time monitoring, motion detection, and alert systems** via SMS.
- Optimized pin allocations for GSM module integration.

Work source: Github



2. Self balancing robot

Problem: Car mirrors and badges being stolen with ease
Proposed solution: Real-time system for monitoring car parts and real-time alert.

- Designed a system to detect and prevent car mirror theft using **MPU6050 sensor**.
- Integrated **3 ultrasonic sensors, LEDs, an MPU6050, and a GSM SIM800L module**.
- Developed a custom **PCB for Atmega328 microcontroller**.
- Implemented **real-time monitoring, motion detection, and alert systems** via SMS.
- Optimized pin allocations for GSM module integration.

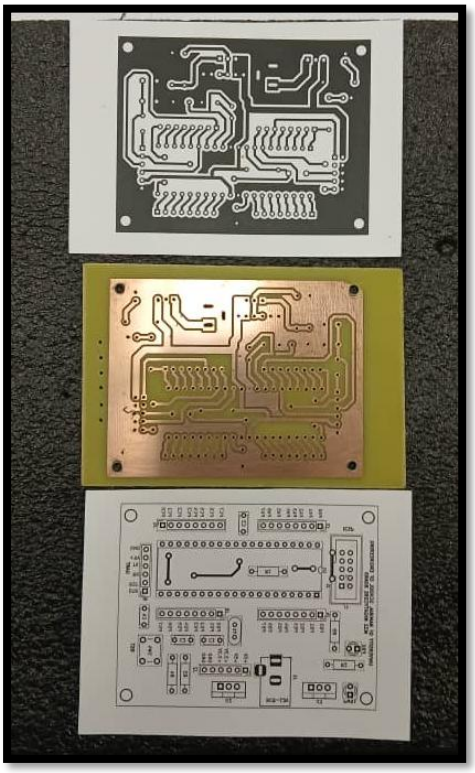
Work source: Github

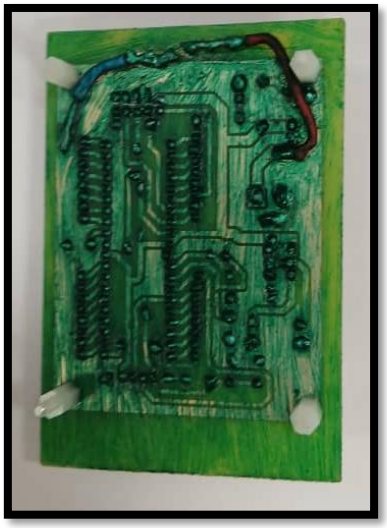
3. MightyCore PCB design and development (replica of Arduino uno)

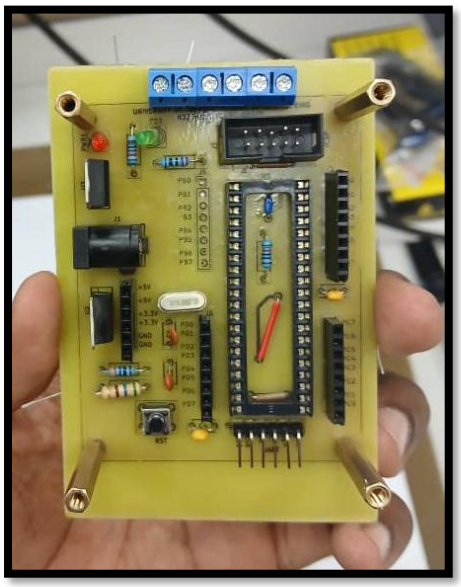
Problem: Client did not have any microcontroller board to experiment with
Solution: I designed and developed for them a MightyCore microcontroller comparable to an Arduino uno

- Designed the microcontroller PCB in KiCAD
- Bought materials required for assembly; heating paper, components (atmega32, resistors etc.)
- Assembled the microcontroller (board preparation to soldering and testing)

Work sources

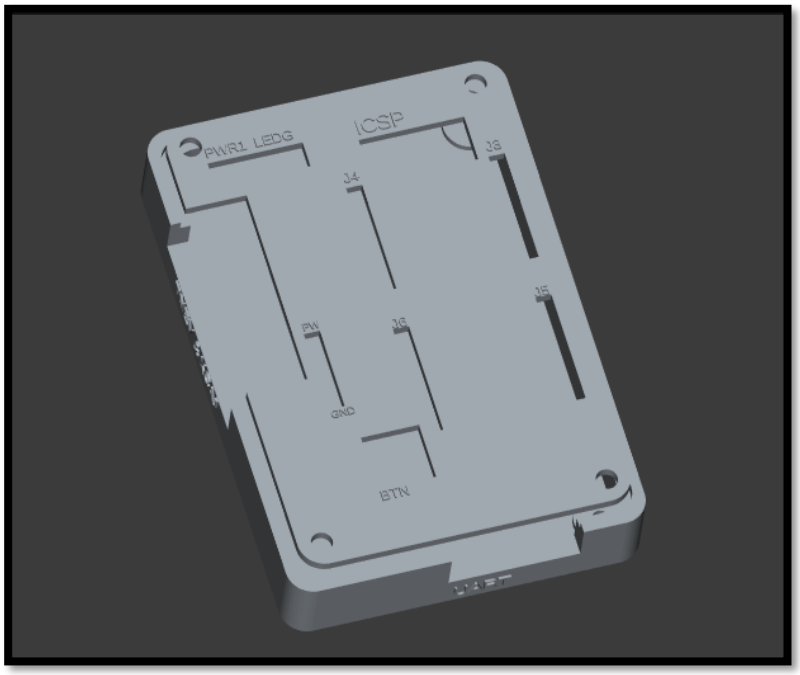






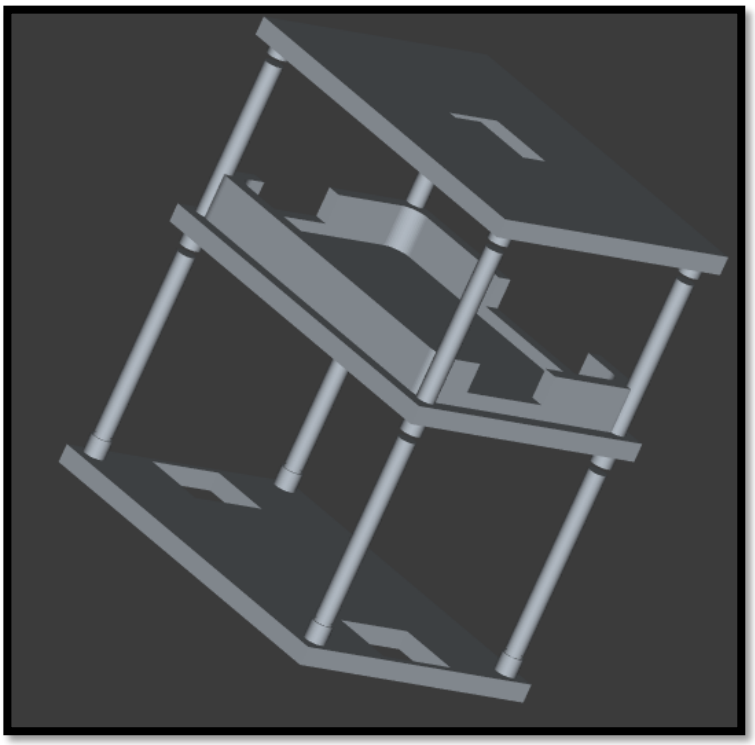
CAD designs

1. MightyCore case



Work source: Github

2. Self-balancing robot body



Work source: Github

Software Development Projects

1. Website Portfolio

Problem: Client had no web presence, displaying skills and work
Solution: I designed, created and launched their webiste

- Designed the website UI/UX
- Developed website; HTML, JavaScript, CSS
- Hosted project with Github

Work sources

Research papers published

I am a scholar. And often publish papers on research that excites me.

Certifications & Training

In order to be able to complete the projects, the following is a list of the certifications and training i had to go through in order to obtain the insights and understanding needed.

Achievements & Leadership

- Top 3 of the 2024 UNAM Chancellor innovation program; Project was based on creating a framework for “Making ML system and internet accessible to people using radio frequencies”
- Successfully developed a **CNN model** for water leak detection in final-year research.
- Designed a **hardware prototype** for a car theft detection system, making technological contributions to security systems.

Languages

- **English** (Fluent)
- **Afrikaans** (Intermediate)
- **Oshiwambo** (Fluent)

References

Available upon request.