

# KUDZAI C KATEERA

## ELECTRICAL & COMPUTER ENGINEER

### Personal Statement

I am an individual in pursuit of growing my knowledge in the ICT and engineering sector. I am seeking an opportunity to use my gained skills in an impactful way and build upon a keen technology interest. My strong academic background has equipped me to be a proficient Software Engineer at MOHARA where I gained a lot of experience. My eventual career aspiration is to become a professional engineer of repute who will contribute to the progression of the world forward through technology.

## ACADEMIC QUALIFICATIONS

- Bsc. Eng. Electrical and Computer Engineering**
  - 2017–2022 University of Cape Town South Africa
    - Computer Science & Machine Learning.
    - Electrical & Electronic engineering
    - Electromagnetic & Power engineering
    - Data Structures and Algorithms
    - Engineering Calculus and Physics.
    - Signals, Analogue and Digital Systems.
    - Embedded Systems Design, Programming.
    - Networks & Digital Communication
  - Ordinary Level & Advanced Level**
    - 2014 - 2015 St Ignatius College Chishawasha
      - International General Certificate of Education A Level: Graduated with 3As.
    - 2012 - 2013 Zimbabwe General Certificate of Education O Level: Graduated with 13As, 1B.

## WORK EXPERIENCE

- MOHARA Ventures SA**
  - 03/23 - Present Intermediate Software Engineer
    - Worked on Full Stack Typescript projects utilizing a different backend frameworks, server side rendered react components and static site generation using a NextJS.
    - Onboarded junior staff and contributed to the recruitment and growth of the team.
  - 07/21 - 03/23 Junior Software Engineer
    - Worked on projects utilizing a microservices architecture running each service in a docker container whose image was hosted on AWS Elastic Container Service (ECR) and deployed with pipelines on AWS Elastic Container Service (ECS)
  - 12/20 - 06/21 Associate Software Engineer
    - Working on assigned projects in both backend (NodeJS) and front end (reactJS).
    - Working on a Django-based project involving data processing using a celery server.
    - Domain Driven design of software, database design, infrastructure setup, Agile.
- University of Cape Town Electrical Engineering Dept.**
  - 01/21 - 06/21 3rd Year Electrical Engineering Design Principles course Tutor
    - Agile Scrum review meetings with teams, marking reports, tests and advising teams
  - 01/19 - 06/19 2nd Year Embedded Systems course Tutor
    - Tutoring a class of 250 students, two 2 hour sessions a week with a team of 10. Conducting practicals, marking code and reports and providing feedback.

# WORK EXPERIENCE

- eLearning Solutions Zimbabwe Pvt. Ltd.**  
2016 – 2017 ● Full-time IT Intern - Internal IT and Client Fulfilment
  - Managed Windows Server 2012R2 AD Users and group policies.
  - Managed Microsoft Dynamics AX, python-based ERPNext and php-based Bitrix24.
  - Hardware and Software repair of Intel Classmate PCs,
  - Educational Content upload on Linux-based Intel Education Content Access Point.
  - Set up a cloud PBX with a VoIP provider that reduced communication costs by 50%  
\*\*Left full time and worked part time remotely, while studying.
- Zimbabwe Electricity Transmission and Distribution Company**  
06/18 - 07/18 ● Full time IT Systems and Support Intern
  - Maintenance, Administration and backup of Oracle Databases.
  - Optimizing Networks and maximizing uptime, enterprise software and user support.
- Digital Skills Foundation France**  
2016 - 2017 ● Part time IT Consultant
  - Installation of moodle, a web-based LMS, revamping of user interface.
  - User enrollment, management and support, Administering online exams.
- Pitman Training Zimbabwe**  
2016 - 2017 ● Part time IT Support
  - Maintaining Training center IT systems, computing and networking hardware.

# SKILL SET

Gained communication, interpersonal, team synergy and time management skills through my education and was reinforced with my working experience: tutoring diverse students, working in teams and managing time  
Gained technical skills by attempting to quench my insatiable thirst for IT and engineering related quests.

## Languages

- ENGLISH (*proficient*)
- SHONA (*proficient*)
- FRENCH (*basic*)

## Programming

- TYPESCRIPT (*intermediate*)
- HTML/ CSS (*intermediate*)
- PYTHON (*advanced*)
- JAVA (*intermediate*)
- C / C++ (*advanced*)

## Computing

- Windows, Linux, MacOS
- Docker, Kubernetes
- GIT, DNS System
- AWS Cloud Computing

## OtherSkills

- Tech Leading
- Communication with Stakeholders
- Agile Methodologies
- Solution Design
- Infrastructure Architecture design

# Technologies

### ● Frame works:

Django  
Express  
NextJS 13  
React 18

### ●Databases:

MySQL  
PostgreSQL  
MongoDB  
Timescale

### ● Amazon Web Services:

API Gate way,  
ECR, ECS, EC2, S3,  
Lambda, DynamoDB,  
Cloudfront

### ● Other Tech:

Nginx, Celery,  
RabbitMQ, Sendgrid,  
Sentry, Strapi,  
Grafana, Prometheus

## PROJECTS

- Data Logger - A high availability data logging [system](#) comprising of 3 raspberry pis running k3s Kubernetes with Docker containers collecting logged data on timescaleDB and visualizing with Grafana and managed using Portainer.
- SmartAgro - [pyPi](#) GPLv3 open-source python package for ARM-based raspberry Pi for an IOT-enabled greenhouse monitoring and control hardware Application Programming interface. Demo [here](#).
- Audio Steganography - A novel [python project](#) hiding information on inaudible range (>20kHz) on a wav audio file without detection.
- SMTP Client - A python based Simple Mail Transfer Protocol client capable of using the SMTP server to send and receive mail.
- Web Server - Python Socket programming to listen to concurrent web requests and serve relevant data.
- Sous-Chef - Hackathon winning application implementing food recipes API on a bootstrap theme.
- ALU design - Central Processing Unit Arithmetic Logic Unit design for basic operations.
- Horn Antenna - Design of a flaring metal waveguide antenna using Feko that can be used for Ultra High Frequency (UHF) frequency transmission.
- Websites - ePortfolio, Table Bay Toastmasters, UCT ZimSoc Website, UCT Developer Society Website

## Certifications & Memberships

- 2023 ■ **Institute of Chartered IT Professional (ICITP)**  
A professional body for IT professionals - recognised by South African Qualifications Act (SAQA) in terms of the National Qualifications Framework (NQF).
- 2023 ■ **Amazon Web Services Solutions Architect Associate**  
Proficiency with utilizing cloud services provided by AWS and designing secure, high-performing, resilient, and efficient infrastructure.

## ACHIEVEMENTS & OTHER

- 2020 ● University of Cape Town Developer Society Representational state transfer (REST) API coding runner up.
- 2019 ● University of Cape Town Allan Gray DEVSOC Hackathon Winner.
- 2021 ● Toastmasters Vice President Public Relations Seapoint - Cape Town.
- 2015 ● High School Annual School Magazine Editorial Team.
- 2014 ● Econet Wireless Zimbabwe Top 50 Ordinary Level results nationwide Joshua Nkomo Scholarship.

## COMMUNITY INVOLVEMENT

- 2021 ● University of Cape Town Developer Society Marketing Director.
- 2021 ● UCT Zimbabwean Students Society (ZIMSOC) President.
- 2020 ● UCT Zimbabwean Students Society (ZIMSOC) President.
- 2018 ● Students' Health and Welfare Centres Organisation (SHAWCO) High School Tutoring.
- 2017 ● Mother Of Peace (MOP) Children's Home Cooking, Donation .
- 2016 ● St. Marcellines Childrens Home Visit.
- 2015 ● Mashambanzou Care Center Visit and Cleanup.
- 2014 ● St. Peter Claver Youth Against Aids club initiation.
- 2013 ● Southern Africa AIDS Dissemination Service (SAfAIDS) Certified Peer Educator.