

SHICHABO NKUNA

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Portfolio: <https://shichabonkuna22-star.github.io/portfolio/>

PROFESSIONAL SUMMARY

ICT Graduate with hands on experience building and deploying full-stack applications. Developed 15+ projects featuring live databases, admin dashboards, system analytics, secure authentication workflows and AI-powered facial recognition.

Proficient in Python, C#, SQL, ASP.NET, JavaScript, React, HTML, and CSS. Experienced in WebSocket communication, cloud deployment on Microsoft Azure and Render, as well in CI/CD foundations, Agile and Scrum methodologies, software testing, and SDLC.

PROJECT EXPERIENCE

Developed & deployed 15+ full-stack web applications over the past three years; all connected to databases and available for testing. Projects include;

SA Digital Voting System

Secure **biometric voting** platform built with backend authentication and real-time dashboards.

- Implemented **facial recognition authentication** using face recognition library
- Developed real-time vote casting with verification storage
- Built WebSocket-powered live results dashboards
- Created admin audit logging and monitoring features

Smart Fatigue Detector

AI-powered **driver safety system that prevents drowsy driving** accidents by monitoring eye behavior in real-time.

- Real-time fatigue detection using computer vision to track eye closure duration and **trigger alerts when drowsiness is detected.**
- Smart alarm system with adaptive thresholds that learn individual driver patterns, reducing false positives while catching genuine fatigue

Nkuna Banking System

Secure online banking platform with transactional processing.

- Built secure **money transfer** and bill payment modules
- Implemented transaction **reversal functionality**
- Developed **live customer support** system with Socket.IO

Bakers Lovers E-Commerce System

Full e-commerce platform with payment integration.

- Integrated **Stripe payment** gateway
- Implemented persistent **shopping cart** functionality
- Designed automatic **low-stock alerts** for admin
- Managed production deployment and configuration

View projects here: <https://shichabonkuna22-star.github.io/portfolio/>

EDUCATION

Diploma in Information and Communication Technology (ICT) – Durban University of Technology | Durban, South Africa

Driver's License: Code 10

CERTIFICATIONS

Oracle Cloud Infrastructure (OCI)

- OCI 2025 Migration Architect Professional (1Z0-1123-25)
- OCI 2025 Architect Associate (1Z0-1072-25)
- OCI 2025 AI Foundations Associate (1Z0-1122-25)
- Oracle Data Platform 2025 Certified Foundations Associate

TECHNICAL SKILLS

Programming Languages

- C#, Python, Java(basics) JavaScript, React, HTML, CSS, SQL

Frameworks & Technologies

- ASP.NET MVC, .NET Core, Flask, SQLAlchemy
- Socket.IO, OpenCV, MediaPipe, Dlib, Entity Framework

Databases

- Microsoft SQL Server, Azure SQL, PostgreSQL, SQLite

Web Development

- Full-Stack Development, REST APIs, Stripe Payment Integration
- Admin Dashboards, System Analytics, Real-Time Communication

Security & Authentication

- 2-Factor Authentication (Google Authenticator), Eye Aspect Ration Detection
- Facial Recognition, Session Management, Role-Based Access Control

Cloud & Deployment: Microsoft Azure, Render, Gunicorn

Tools & Platforms: Visual Studio, VS Code, Git/GitHub, Gunicorn, CMake

Methodologies: Agile, Scrum, SDLC, Software Testing, Debugging & Refactoring

CI/CD & DEVOPS FOUNDATIONS

- Version control using Git/GitHub (branching, pull requests, code reviews)
- Basic CI/CD implementation concepts
- Iterative workflow: Develop → Test → Fix → Re-deploy
- Deployment to Azure and Render environments
- Production configuration management (Gunicorn, environment variables)
- Database migration and environment management practices