# Curriculum Vitae — Werner Pretorius

**Software Engineer · Solutions Architect · Reverse Engineer · Author** MobiSec Cloud (Pty) Ltd, Reg 2025/943137/07 — Owner / Director · Brits, North West, South Africa · Remote-capable · English / Afrikaans *Contact details, references, and certificates available on request / in the data room.*

## Professional Summary

Analytical, outside-the-box technologist with 14+ years practical experience across software development, solution architecture, information/network security, reverse engineering, and systems administration — plus hands-on engineering trades (welding, electrical wiring, vehicle mechanics, hydraulics, micro-electronics). Specializes in rescuing and modernizing legacy monoliths into low-footprint, high-performance microservices, then mentoring client teams to operate them. Primary web stack: **Blazor Server + C#**; cloud solutions in **C#** end-to-end; fluent reading/debugging/porting **Java, Rust, VB.NET/Visual Basic, Clarion, Progress 4GL/OpenEdge, C/C++, Pascal, PHP**. Azure hosting + Azure DevOps (repos, pipelines) co-managed for the Payme/Mentenova programme. Author of *The Intimacy of Truth* (in progress). Practical depth beats book smarts.

## Core Competencies

Solution architecture (monolith→microservices strangler) · C#/.NET (Framework→Core→10), Blazor Server/WASM, MAUI/Xamarin · Web, e-commerce & CRM builds · Reverse engineering (barcodes/RSA, RFID/AEI, pcap, emulation) · Vulnerability assessments, Zero-Trust identity (DPoP/FIDO2, MFA mesh), network active defense (Go/eBPF, WAF, ipset), RASP · Biometrics (ZKTeco/Crossmatch, R558/AS608) · Data (MS SQL, Postgres/Timescale+PostGIS, MySQL, SQLite, Oracle; EF + Dapper; Redis) · Document management & OCR · Azure hosting + DevOps · Mentorship & delivery leadership · JSE-scale identity & onboarding design.

## Professional Experience

**Owner / Director — MobiSec Cloud (Pty) Ltd (only registered business), Brits — 2022–Present** Bespoke development + SaaS incubation: OmniTrust/OmniLock zero-trust mesh, OmniGrid HEMS, RDT biometric terminals, container/OCR logistics pipeline, PlayStore/MobisecLite app suite. Consulting member, JSE Project Horizon (consolidation of JSE webapps into one secure online trading platform; Biometric-First Identity Framework v1.0 + onboarding flows).

**Lead Architect — Payme / PlanMyBenefits programme — ~3 years** Commissioned to optimize legacy Mentenova benefits monolith (`netcoreapp2.2`, MVC/jQuery, EF Core 2.x, IdentityServer4). Single-handedly architected and built the modern `net10` replacement (Blazor UI, split Dataservice/Calculation/ClientAccess APIs, standalone Identity microservice, event-driven messaging, Redis cache, OpenAPI, 4 envs + APITEST; Azure-hosted, DevOps-managed). Final ~1.5 years: mentored and upskilled the client's internal developers in the monolith→microservices design patterns.

**Remote Developer — RapidDev, Durban — 2021–Present** Web API + Xamarin/Android rescue, debugging, and ongoing improvement of client systems.

**Freelance Software Engineer — 2017–2021** Driver-licence pre-capture scanning (external specialist), TTTFP/CTMS operator + officials enterprise deployment apps (SADC corridor), proprietary SSO cryptographic services + mobile clients + Linux/Windows server admin, assorted POC/R&D.

**WiFi Engineer / Software Developer — Alteram Solutions, Midrand — 2017** Tender demos, in-house tools, reverse engineering of orphaned software, SAP integration modules, legacy biometric integration, Ruckus SmartZone/SpoT.

**Systems Engineer — Ionizer, Johannesburg — 2016–2017** Client infrastructure, installs, monitoring, Ruckus AP triangulation, R&D.

**Progress 4GL Developer / Tester & Second-line Support — Magna BC, Pretoria — 2012–2017** OpenEdge systems, Crystal Reports, calibration tooling (days→minutes); earlier: functional test docs, DoD mobile medic app testing, DRC House Plates (GIS + biometrics), Malawi site supervision and staff training.

**Solutions Developer — Anderson Scanning Technologies, Midrand — 2011–2012** Microfilm production automation (+~70% throughput), monitoring/logging, XML indexer (+~70%), validation auto-fix, Java/Oracle uploader, LTO shell scripts, IRIS management, junior mentoring.

## Flagship Deliverables (evidence in portfolio register §7)

PlanMyBenefits modernization · SA/Namibian DL barcode RE chain · Transnet RFID AEI decoder · RDT biometric terminals · OmniTrust/OmniLock security mesh (red-team audited) · CTMS corridor MDM · OmniGrid HEMS · Container/OCR pipeline · JSE biometric identity framework. Pilots: ContainerRowCall, VisitorManagementSolution, OmniLock (OldWipps).

## Education & Certifications

N+ Network Technologies (Damelin, 2009) · Java Programming/Eclipse (2008) · EnCase Enterprise Implementation/Training — forensic tool (2008) · Progress 4GL Programming Essentials (2015) · Software Development Bundle — Java/HTML5/C#/Azure/C++ (2017–2018) · Business Skills Development (2013) · MIT Cryptography L1–L2, Project/Business Management Fundamentals, Network Security Fundamentals, Blockchain Fundamentals, MAUI UI, Adobe Graphics, WordPress Hosting (edX/Coursera/Alison).

## Differentiators

Not the best in any single skill — unmatched in breadth + practical depth + creativity across IT and engineering trades. Ships, documents, mentors, and hands over running systems.