DANIEL IDAHOSA
SOFTWARE ENGINEER

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EXPERIENCE

DJANGO BACK-END ENGINEER (FREELANCE), 720SCORES. | Django, Python, cPanel.
(SEPTEMBER – NOVEMBER 2024)

- **Developed and maintained** league information data, webpages and URLs, including sections for league overview, top scorers, team statistics, league table, and match schedules for pc and mobile.
- **Optimized league arrangement** based on popularity metrics across multiple sections for pc and mobile.
- **Refactored legacy codebase utilizing data structures** to improve performance**,** code readability, maintainability, as well as reducing the time spent on debugging by at least 25%.
- **Implemented defensive coding practices** and **structured logging** to diagnose third-party API failures, reducing downtime by 25%.

PROJECTS

ARHAN ANALYTICS (Proprietary) | Python, Pandas, FastAPI, LLM | GitHub

- Engineered a quantitative valuation engine that automates Discounted Cash Flow (DCF) analysis to calculate intrinsic value for equities using historical financial data.
- Integrated an LLM-based AI Financial Analyst to ingest quantitative outputs and generate natural language investment theses, risk factors, and market sentiment summaries.
- Built an automated reporting pipeline that synthesizes valuation models and AI commentary into professional-grade PDF investment memos, reducing manual analysis time by 25%.

ARHAN FINANCIAL | Docker, Django, FastAPI, Python, NGINX, RabbitMQ | GitHub

- Distributed Architecture: Architected a Dockerized microservices banking platform on a Linux VPS (Hetzner) with six decoupled services (Identity, Accounts, Ledger, Fraud, Payments, Frontend) communicating asynchronously via RabbitMQ and Celery, routed through an Nginx API Gateway.
- Transactional Integrity: Implemented idempotent, atomic transactions with double-entry bookkeeping logic to handle race conditions and ensure data consistency across independent databases during high-concurrency simulations.
- Security & Reliability: Secured inter-service communications using JWTs and an event router pattern for atomic funds transfer. Engineered a robust CI/CD pipeline via GitHub Actions, integrating automated unit testing and defensive coding strategies to ensure production reliability and fail-safe deployments.

ORION'S SHIELD | Django, Python, OpenCV, YOLOv5, InsightFace | GitHub

- Developed a real-time surveillance platform integrating InsightFace and a quantized YOLOv5n model for facial recognition and weapon detection.
- Engineered a real-time alerting system via SMS for weapon detection events, ensuring immediate incident response.
- Built a "Threat Center" dashboard to visualize logging data and monitor security trends from connected camera feeds.

STOCKIFY | Django, Python, C++, PostgreSQL | GitHub

- Engineered a high-performance C++ transaction engine to handle scalable processing for leveraged stock and options trading.
- Secured financial transactions using PyOTP (2FA) and protected API endpoints with robust JWT authentication.
- Integrated third-party APIs including Tiingo for real-time market data and Braintree for secure deposit processing.

ALGORITHMIC TRADING BOT | Python, MetaTrader5

- Engineered a Python-based algorithmic trading system that executed a mean reversion strategy on commodity assets by integrating directly with the Meta Trader 5 platform API.
- Implemented real-time trade management and monitoring logic with terminal updates to track live performance and system status.
- Developed Python scripts to conduct in-depth time series analysis tests, including Bollinger bands analysis, ADF, cointegrated ADF and Hurst Exponent tests on selected commodities within Jupyter notebook to validate strategy effectiveness.

HOSPITAL MANAGEMENT SYSTEM | Django, Python

- Developed a webapp that enables registered users and patients to schedule appointments with doctors, manage prescriptions through the pharmacy.
- Integrated DeepSeek API to engineer an LLM-based feature to engineer an LLM-based feature that analyses patient vitals and generates natural language health summaries via Prompt Engineering.
- Implemented Role-Based Access Control (RBAC) to strictly secure sensitive data across Doctor, Pharmacist, and Staff accounts. Secured API endpoints with JWT.

AI-ML | Python

- A suite of ML models from scratch to solve diverse problem types, which includes: predictive modelling with the use of univariate and multivariate linear regression models for quantitative forecasting.
- Development of classification systems implemented via logistic regression and a multi-layer perceptron (MLP) classifier for binary and complex pattern recognition. Unsupervised learning is done by applying K-means clustering to uncover hidden patterns and groupings within unlabelled datasets.

C++ PROJECTS REPOSITORY

- Developed a suite of high-performance applications, including a basic low-latency stock transaction engine, an object tracking solution using Kalman Filter and multithreaded utilities, to demonstrate core systems programming concepts.
- Implemented manual memory management using pointers and custom allocators to optimize resource usage, alongside multithreading primitives (mutexes, locks) for concurrent task processing.
- Utilized memory profiling tools (Valgrind) to diagnose memory leaks and analyze stack traces, optimizing the transaction engine for high-performance execution.

SKILLS & TOOLS

- **Back-end framework:** Django, FastAPI.
- **Programming languages:** Python, C++.
- **DevOps & Infrastructure:** Docker, Nginx, RabbitMQ, Celery, Git, CI/CD (GitHub Actions).
- **Databases:** PostgreSQL, SQLite3.

- **Other Tools & Libraries:** Linux, Pandas, Matplotlib, OpenCV, scikit-learn.
- Testing: TDD, Pytest, Unittest, Valgrind.
- Strong collaboration and team working skills.
- REST API Design.

EDUCATION

BSC ELECTRICAL & ELECTRONICS ENGINEERING - UNIVERSITY OF LAGOS
(Coursework Completion: July 2026 (Awaiting Convocation))

CERTIFICATES

- Oracle Cloud Infrastructure AI Foundations Associate – [2025].
- Lyft Virtual Back-End Engineering Internship (Forage) – [2023].
- GitHub Campus Experts DevSprint Certificate of Participation – [2023]
- Hacker Rank Python Proficiency Certificate – [2023].
- Cisco Cybersecurity Essentials (Net academy) - [2020].
- Cisco Introduction to Cybersecurity (Net academy) – [2020].
- Cisco Routing and Switching Essentials (Net academy) – [2019].