

DENNIS ATONYA

SOFTWARE ENGINEER

denatonya@gmail.com · github.com/dentonya · linkedin.com/in/dennis-atonya
dentonya.github.io/dentonya_portfolio · Nairobi, Kenya

PROFESSIONAL PROFILE

Software Engineer with 5+ years of experience building secure, scalable, production-grade systems across agritech, healthcare, ERP, and marketplace platforms, including 2+ years in technical leadership roles. Proven track record leading development teams in Agile/Scrum environments, delivering high-quality solutions using Python (Django/DRF), Node.js, TypeScript, and NestJS, with frontend expertise in React and modern JavaScript technologies.

Familiarity with Odoo and ERP systems through hands-on development of custom ERP solutions for agritech sector. Experienced in designing secure authentication systems (OAuth2.0/OpenID Connect, RBAC, JWT), architecting modular event-driven microservices with PostgreSQL, Redis, and Kafka, and maintaining 90%+ test coverage. Proficient with cloud-native technologies including Kubernetes containerization, Docker, and CI/CD pipelines (GitHub Actions). Skilled in deploying and optimizing applications across AWS, Azure, and GCP. Passionate about quality automation, continuous learning, mentoring team members, and fostering collaborative culture while delivering reliable, high-impact solutions for rural distribution networks and farmer-centric platforms.

WORK EXPERIENCE

SunCulture Kenya Limited

Software Engineer II

January 2025 – Present

- Lead marketplace development team, mentoring junior engineers through code reviews, pair programming, and knowledge sharing sessions to enforce best practices and maintain 90%+ test coverage
- Develop and maintain scalable microservices using Node.js, TypeScript, Python, and NestJS in Agile/Scrum environment with sprint planning and daily stand-ups
- Support technology transformation efforts by architecting modular, event-driven systems with clean separation of concerns
- Architected centralized Authentication and Authorization Service implementing OAuth2.0 and OpenID Connect flows, JWT-based access control, and role-based access control (RBAC) to secure multiple internal and external applications, enabling single sign-on (SSO) and fine-grained permission management across platforms

- Developed Omnichannel Notification Service supporting SMS, Email, Slack, and WhatsApp integrations, building reusable messaging pipelines, template management, and event-driven triggers to power transactional, operational, and customer engagement communications
- Built scalable Customer Marketplace Platform integrating insurance providers, vendors, and financing partners, implementing provider onboarding workflows, service discovery APIs, transaction flows, and partner integrations to streamline cross-organization collaboration
- Optimize system performance through AWS RDS, Redis, and Kafka integration with cloud deployments on AWS, Azure, and GCP using containerized environments and Kubernetes orchestration
- Lead Cash Release App development for streamlined expense tracking and approvals utilizing CI/CD pipelines with GitHub Actions
- Relentlessly improve and refine development processes through automation, quality gates, and continuous integration practices
- Foster collaborative team culture and support team member growth through mentoring and technical guidance
- Collaborate cross-functionally with QA, DevOps, and Product teams to deliver end-to-end features and system improvements using Jira for project management

Savannah Informatics Ltd

Software Engineer

May 2024 - January 2025

- Developed comprehensive healthcare management systems including SHA Provider Portal and Slade360 Advantage for streamlining patient administration, clinical care, and revenue cycle management in health care centres
- Built and maintained RESTful APIs using Django REST Framework and Python, enhancing system performance and scalability by 40%
- Implemented robust microservices architecture for handling background tasks and high-concurrency services in containerized cloud environments
- Integrated eTIMS for seamless billing and compliance, and USSD workflows for simplified patient enrollment
- Utilized PostgreSQL for complex relational database management and optimization
- Maintained 95%+ test coverage using Pytest for comprehensive unit and integration testing with passion for quality and automation
- Participated in technical documentation and RFC processes via Confluence, ensuring knowledge sharing across teams

eProd-Solutions Ltd

Software Engineer

June 2022 – April 2024

- Developed and maintained eProd ERP system using Delphi, SQL, and MySQL, serving agritech clients across multiple countries to support rural distribution networks and farmer operations
- Gained deep familiarity with ERP system architecture, business logic, module integration, and workflows including inventory management, order processing, financial transactions, and reporting systems
- Built comprehensive farmer enrollment and validation system using MasterCard Community Pass APIs for digital ID processing, supporting millions of farmer registrations
- Created Windows services for farmer-produce traceability to track deliveries and optimize delivery routes and developed language translation tools for multi-country deployment
- Designed and implemented survey generation tool and administration generator enabling decision support solutions for analyzing farmer data and loan repayments
- Built Proof of Concept desktop application for bank payments and mobile payments utilizing vBank financial APIs for Nigerian clients
- Managed complex SQL and MySQL databases supporting enterprise-level ERP operations with focus on data integrity, performance optimization, and transaction management
- Utilized Jira for sprint-based Agile project management and Tortoise SVN for efficient version control and collaboration
- Contributed to network management and hardware maintenance while engaging in daily stand-ups and agile practices

Qaribuhub Solutions LTD

Software Engineer Contributor

May 2024 – Present | Part Time

- Build scalable, secure backend services using Python, Django, and Django REST Framework for service marketplace platform
- Develop responsive frontend components with React, JavaScript, and modern HTML/CSS practices
- Implement advanced geolocation and smart search features to enhance user discovery of nearby services
- Integrate secure data practices including account verification, password hashing, and real-time notifications
- Contribute to platform architecture decisions and deployment strategy using Docker containerization and AWS infrastructure

Section.io

Technical Writer (Freelance)

Feb 2021 – April 2022

- Authored comprehensive technical articles and tutorials using Markdown for the Section Edge Platform
- Built tutorial projects demonstrating Python, Django REST Framework, and React JS best practices
- Contributed to open-source Section.io article repository, collaborating with technical experts to meet publication deadlines, demonstrating desire to keep learning

eProd-Solutions Ltd

Student Intern

Jan 2022 – April 2022

During my internship, I worked with Delphi programming, software documentation, and project management tools like Jira and Trello, with responsibilities including:

- Collaborated on the development of the company's Moodle e-learning site
- Contributed to successful software documentation on various financial APIs
- Worked on minor Delphi projects to improve Delphi and MySQL skills for ERP development

PROJECTS – [Portfolio](#)

- [eLima](#) ERP System – Designed and built a full-stack ERP from scratch for farmer registration, produce collection, and mobile payments using Python (Django REST), React JS, and PostgreSQL. Currently being used in production for produce collection with 1K+ farmers registered and 15K+ kg of produce processed and paid out. Demonstrates comprehensive understanding of ERP architecture including module design, business workflows, inventory management, order processing, payment integration, and reporting systems similar to Odoo's modular approach.
- Collaborated on an [e-commerce platform](#) for selling pet accessories, including checkout features and integrated M-Pesa mobile payments.
- Worked on the AI-Enhanced Intimate Partner Violence (IPV) Prediction System – a smart platform that uses machine learning and geolocation data to predict IPV risk scores and support faster, more effective responses, demonstrating passion for learning new technologies.
- Collaborated on developing [Revelation Collective](#) – a Christian-centered platform that connects young adults from different churches through worship, biblical teaching, and discipleship, featuring M-Pesa-powered event ticketing, payments, and community engagement.
- RentEasy – Developing a house-hunting app with React JS and NestJS, focusing on user-friendly listings and property management.

- GraphQL Web Service – Created a secure, interactive link management tool using Django, GraphQL (graphql-django), and JWT authentication.
- Web Service – Created a Python web service with Django REST Framework and PostgreSQL, implementing OAuth2 authentication and integrating Africa's Talking SMS Gateway for secure messaging.
- Inventory Forecasting System – Designed a predictive analytics tool using XGBoost, integrated into a web app with Django REST and React for inventory management and decision support.
- University Society System – Contributed to a records management system using Python, Django REST, and React for organized data handling.

SKILLS

- Programming Languages: Python (5+ years), JavaScript, TypeScript, Node.js, Delphi, NestJS
- ERP Systems: Familiarity with Odoo and ERP architecture through development of custom ERP solutions (eLima) and 2 years working on eProd ERP system. Understanding of ERP modules, business workflows, farmer management, order processing, inventory systems, payment integration, delivery tracking, and reporting
- Frontend Development: React JS, JavaScript (POS frontend experience), HTML, CSS, Tailwind
- API Design & Integration: REST, GraphQL
- Databases: PostgreSQL, MySQL, SQLite
- ORMs: Django ORM, Prisma
- Testing & Quality Automation: Pytest, Unit and Integration tests, passion for quality and automation
- Security & Identity: OAuth2, OpenID Connect, JWT, HTTPS, RBAC
- Version Control: Git, GitHub, GitLab, SVN
- DevOps & CI/CD: GitHub Actions, Docker containerization, Kubernetes orchestration, cloud-native architecture
- Cloud Platforms: AWS (RDS, EC2, S3), Azure, GCP
- Agile Methodologies: Experienced Scrum practitioner, sprint planning, daily stand-ups, retrospectives
- Tools: Jira, GitHub, Trello, Confluence
- Soft Skills: Technical leadership, mentoring, proactive, desire to keep learning, effective communicator, collaborative team member, nurturing team culture

EDUCATION

Jomo Kenyatta University of Agriculture and Technology

Bachelor of Science in Computer Technology | 2018 – 2022

First Class Honours

Mastered skills encompassing software development (Python, Django), cybersecurity, containerization (Docker, Kubernetes), networking, and machine learning, complemented by web development, database management, computer graphics, and project management skills.

Worked on various projects:

- Inventory Forecasting Management System using Python, Django Rest Framework, React, and a trained XGBoost model for predictive analytics in machine learning
- People detection and tracking system using centroid-tracker and object_trackable in Python
- Elevator Simulator using Python and Tkinter
- Inventory Management System using Django and Docker for containerization

QA TestLab Certification

Fundamentals of Software Testing | 2022

Gained skills in:

- Web, mobile, and game application testing. Using Bug Tracking Systems (Mantis) for bug reporting and TestLink for test case creation

REFERENCES

1. Sherman Ouko

Microsoft, Product Manager II

Email: oukosherman@gmail.com

2. Kevin Obote

Data Scientist | Software Engineer

Email: kevinobote94@gmail.com