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PROFESSIONAL SUMMARY

Full-Stack Software Developer with advanced expertise in TypeScript, React, NestJS, and cloud infrastructure. Computer Science diploma holder combining technical excellence with practical business operations knowledge. Proven track record of delivering production-ready SaaS applications, managing deployment pipelines, and implementing complex permission based systems. Passionate about solving real-world problems through clean architecture, DevOps optimization, and continuous learning.

TECHNICAL SKILLS

Programming Languages

C/C++, JavaScript, TypeScript, PHP, Python, Dart, Bash/Shell Scripting

Web Development & Frameworks

HTML5, CSS3, React, Node.js, NestJS, Tailwind CSS, REST APIs, RxJS

Databases & ORMs

PostgreSQL, MySQL, Prisma ORM, Database Design & Optimization, SQL Query Optimization

Systems Administration & DevOps

Windows Server, Active Directory, VMware ESXi, Ubuntu Server 22.04 LTS, Linux Networking, Docker, Nginx, SSH, Tailscale, NFS, Cockpit

Cloud & DevOps Tools

DigitalOcean, Azure Neon, Docker, Docker Compose, GitHub Actions (CI/CD), Git, Linux (Linux Mint)

Hardware & IoT

Arduino, Raspberry Pi, Blynk IoT, Sensor Integration, IoT Systems, Embedded Systems Development

Development Tools & Platforms

VS Code, GitHub, Docker, Git, XAMPP, Windows Operating Systems, Microsoft Office Suite

Specialized Skills

- Permission-based Access Control Systems
- Real-time Data Synchronization & Offline-First Architecture
- Drag-and-Drop Interfaces
- Session Management Implementation
- Payment Gateway Integration

- Database Schema Design & Migrations
- Frontend State Management
- Component-Based UI Development

PROFESSIONAL EXPERIENCE

Full-Stack Developer & Project Lead | SwanAir Travels and Safaris | Kampala, Uganda | 2025 - Present

Leading development of comprehensive travel and safaris costing software

- **Frontend Development:** Building responsive React applications with TypeScript, implementing drag-and-drop itinerary interfaces, managing complex state with RxJS
- **Backend Architecture:** Developing robust NestJS APIs with permission-based access control, supplier management systems, and real-time cost calculations
- **Database Management:** Designing and optimizing PostgreSQL schemas, implementing efficient migrations with Prisma ORM, optimizing queries for large datasets
- **DevOps & Deployment:** Setting up CI/CD pipelines using GitHub Actions, managing DigitalOcean droplets, configuring Nginx reverse proxies, containerizing applications with Docker
- **Product Features:**
 - Intelligent pricing & markup rule engine with real-time recalculations
 - Modular itinerary creation with drag-and-drop interactions
 - Backend priority handling for markup rules
 - Supplier management with permission-based access control
 - Real-time data synchronization across client applications
 - Complete authentication and authorization system

Outcome: Production-ready SaaS platform serving tour operators with clean, scalable TypeScript architecture.

Full-Stack Developer (Apprentice) | Refactory Academy | Kampala, Central Region, Uganda | June 2025 - Present

- Currently enrolled in intensive full-stack development apprenticeship program
- Learning and applying modern web development technologies and industry best practices
- Working on real-world projects with emphasis on full-stack development
- Collaborating with mentors and fellow apprentices on team-based projects
- Developing advanced skills in project management and agile methodologies

Skills: Full-Stack Development, Project Management, Advanced TypeScript, Modern Backend Frameworks

IT Intern | NCR Uganda | Kampala, Uganda | June 2024 - August 2024

- Configured and maintained Windows Server 2019 environments and Active Directory Domain Services
- Implemented VMware ESXi virtualization setup with proper resource allocation and network configuration
- Provided technical support for hardware and software troubleshooting across enterprise infrastructure

- Participated in system maintenance procedures, backup implementations, and security hardening
- Gained hands-on experience with enterprise-level IT infrastructure supporting business operations
- Collaborated with senior IT staff on network configuration and user access management

Freelance Web Developer | Self-Employed | Kampala, Uganda | 2023 - Present

- Designed and developed responsive websites using HTML5, CSS3, JavaScript, and PHP, MySQL
- Implemented server-side functionality with database integration and user authentication systems
- Created user-friendly interfaces focused on accessibility, performance optimization, and cross-browser compatibility
- Collaborated with clients to understand requirements and deliver tailored solutions meeting business objectives
- Managed project timelines and client communications for multiple concurrent web development projects
- Features include user authentication, database integration, responsive design, SEO optimization, and cross-browser compatibility.

Software & Systems Developer | Academic & Independent Projects | Kampala

- **Student Attendance Management System** (Diploma project): Designed and developed using HTML, CSS, JavaScript, PHP, and MySQL with student registration, attendance recording, and admin login functionality
- Tested and debugged system features to ensure data accuracy and reliability

IT Support & Systems Assistant | NCR/SERVICE AND COMPUTER INDUSTRIES (SCI) UGANDA

- Installed, configured, and maintained computers, printers, and peripheral devices
- Diagnosed and resolved hardware, software, and network connectivity issues
- Assisted users with system access, account setup, and password management
- Supported system maintenance, basic backups, and security best practices
- Maintained equipment inventory and technical documentation

KEY PROJECTS

Travel & Safaris Costing Software | 2025 | React, TypeScript, NestJS, PostgreSQL, Docker

Professional travel and safaris costing software for tour operators with intelligent pricing & markup rule engine, modular itinerary creation, backend priority handling for markups, real-time cost recalculations, and clean, scalable TypeScript architecture designed for real-world tour operations.

Outcome: Production-ready SaaS application for tour operators.

Linux Home Lab Server | 2025 | Ubuntu Server 22.04 LTS, Docker, SSH, Tailscale, NFS, Cockpit

Self-hosted infrastructure project using repurposed hardware. Configured static IP server using Netplan, disabled cloud-init network overrides, set up secure remote access using SSH and Tailscale, built NFS file server accessible across devices, managed services headlessly via SSH, added web-based server management using Cockpit, and deployed containerized services using Docker.

Outcome: Production-ready home lab for DevOps practice and self-hosting services.

Server Configuration & Virtualization | 2024 | Windows Server, Active Directory, VMware ESXi, Cisco Networking

Enterprise server setup including domain controller configuration, Active Directory with organizational unit structure and group policies, VMware virtualization with proper resource allocation and network segmentation, DHCP and DNS configuration, and network security implementation.

Outcome: Enterprise-ready infrastructure supporting organizational IT operations during NCR internship.

Smart Home Control System (Arduino IoT) | 2024 | Arduino, C++, Blynk IoT, Sensors, Relay Modules

Comprehensive home automation prototype focusing on security, access control, and autonomous operation. Integrated multiple sensors (temperature, humidity, motion) with mobile app control via Blynk platform. Implemented energy-efficient design with smart scheduling and automated response systems.

Outcome: Functional IoT prototype demonstrating mobile control and autonomous operation.

Recipe App (Flutter Mobile App) | 2024 | Flutter, Dart, Mobile Development

Cross-platform mobile recipe book application with recipe search and filtering, user favorites and bookmarks, offline data storage, and modern UI with animations.

Solar Seed Dryer (Concept & Design) | Ongoing | Solar Technology, Control Systems, Agricultural Applications

Participated in conceptual design combining renewable energy and basic control systems. Continuous research on the usage of solar technologies in the agricultural sector and importance of solar technologies to farmers.

EDUCATION

Diploma in Computer Science

Makerere University, Kampala, Uganda | 2023 - 2026

Completed comprehensive Computer Science diploma with focus on software development and system administration.

Key Areas:

- Computer Systems & Networks
- Programming & Web Development
- Database Management Systems

- Information Systems & Project Development
- Embedded Systems Development

Relevant Coursework: Database Systems, Computer Networks, Software Engineering

National Certificate in Accounting & Finance

Uganda College of Commerce, Pakwach, Uganda | 2019 - 2021

Completed accounting and finance certification with focus on financial management, bookkeeping, and business operations.

Key Areas:

- Business operations
- Financial fundamentals
- Professional ethics and accountability

LEARNING & DEVELOPMENT (ONGOING)

- Advanced JavaScript concepts & modern frameworks
- Full-Stack Development (React / modern back-end frameworks)
- API design, integration, and consumption
- Cloud Computing & Microsoft 365 fundamentals
- Linux systems & home lab experimentation
- Advanced Python development
- Performance optimization for large datasets
- Memory usage optimization and deployment efficiency
- Advanced Docker and containerization
- Database performance tuning

PROFESSIONAL SKILLS

- **Problem Solving & Analytical Thinking:** Debugging complex systems, optimizing performance, solving architectural challenges
- **Clear Communication:** Technical documentation, client communication, team collaboration across technical and non-technical contexts
- **Teamwork & Collaboration:** Experience working with teams at NCR, Refactory Academy, and on independent projects
- **Time Management & Reliability:** Delivering projects on schedule, managing multiple concurrent projects
- **Willingness to Learn & Adapt:** Continuous skill development, staying current with technology trends
- **Project Management:** Agile methodologies, version control with Git, team coordination
- **System Architecture:** Designing scalable systems, database optimization, deployment planning

LANGUAGES

- **English:** Fluent (Written & Verbal)
- **Alur:** Native Speaker
- **Luganda:** Conversational
- **Swahili:** Beginner

PERSONAL ATTRIBUTES

- Strong sense of responsibility and ownership
- Calm under pressure and adaptable to new environments
- Detail-oriented with a systems-thinking mindset
- Passionate about technology, learning, and self-improvement
- Autonomous problem-solver with collaborative mindset
- Committed to writing clean, maintainable code
- Focused on delivering production-ready solutions

CAREER INTERESTS

- Full-Stack Web Development & SaaS Platform Development
- Software Architecture & System Design
- Cloud Technologies & DevOps
- IT Support & Systems Administration
- Embedded Systems & IoT
- Technology-driven business solutions
- Performance optimization & scalability

ACHIEVEMENTS

- **Selected for Refactory Academy Apprenticeship** - Competitive software development program | 2025
- **Travel & Safaris Costing Software** - Production-ready SaaS application for tour operators | 2025
- **Successful Project Completion** - NCR Uganda IT Internship with commendation for technical aptitude | 2024
- **Linux Home Lab Implementation** - Established production-ready self-hosted infrastructure | 2025
- **Full-Stack Development** - Demonstrated mastery of modern web technologies and deployment pipelines

AVAILABILITY

- Open to full-time, internship, apprenticeship, or contract opportunities
- Available for on-site or remote roles
- Flexible with project timelines and deadlines

REFERENCES

Available upon request. Contact information provided for professional references including:

- NCR Uganda IT Department Supervisor
- Makerere University Academic Advisor
- Refactory Academy Mentors
- Freelance Project Clients