

Immaculate Nayiga

Full-stack software developer

Machine learning engineer

Data scientist

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## PROFESSIONAL SUMMARY

Full-stack developer, Machine learning Engineer, and Data scientist with hands-on experience in enterprise automation platforms and educational technology. Proficient in Python/Django and React with proven ability to debug, test complex systems, optimise workflows, and deliver reliable software solutions. Experienced in working with international teams and committed to continuous technical growth.

## SKILLS

- Languages: Python (proficient), JavaScript, TypeScript
- Frameworks: Django (proficient), React.js, NestJS
- Tools & DevOps: Docker, Git/GitHub, AWS, Grafana
- APIs: REST, GraphQL
- ML/Data Science Libraries: NumPy, Pandas, Scikit-learn, TensorFlow, Matplotlib, Seaborn

## EXPERIENCE

**AI SOFTWARE INTERN**, Kampala (Uganda)

**Feyti Medical Group**, August 2025-October 2025

Company Overview: Feyti is a health technology company accelerating access to safe, effective medicine through AI-powered regulation, research, and reporting.

**I contributed to:**

- Data preprocessing, cleaning, and analysis to support model training and evaluation for Feyti's regulatory management platform, which helps pharmaceutical and medical device companies manage submissions, compliance, and documentation.
- Building a dynamic literature monitoring system replacing hardcoded drug lists with database-driven validation, enabling multi-company pharmacovigilance support (CIPLA, QCIL, Abacus) with monthly drug snapshot versioning for regulatory compliance and historical audit trails.
- Implementing an automated drug categorisation pipeline that validates publication mentions against company portfolios in real-time, processing 50+ African health repositories and generating compliance Excel reports with valid/invalid drug classifications using AI-powered safety signal extraction
- Designing and developing AI-driven regulatory management applications supporting pharmaceutical companies (Cipla, Abacus, QCIL) in submissions, compliance, and documentation workflows, including literature extraction from OJS journals, DSpace repositories, and PDF documents.
- Collaborating with cross-functional teams to integrate Google Gemini LLM for automated publication screening, metadata enrichment, country extraction, and validity classification based on ICSR pharmacovigilance criteria.

#### **Tech Stack & Tools:**

- Backend: FastAPI, Django, PostgreSQL, Redis
- Frontend: [Next.js](#) with TypeScript
- Infrastructure: AWS (S3, ECS, RDS, CloudWatch), Docker, CI/CD

**SOFTWARE DEVELOPER**, Tokyo, Chiyoda(Japan)

**Portament.jp**, April 2025-July 2025

- Company Overview: Collaborated with cross-functional teams across Indonesia, Vietnam, and Japan on OpsGuide, a large-scale enterprise workflow automation platform integrating tools like Slack, Gmail, Salesforce, SharePoint, and Microsoft Teams. The system automates complex business processes, reduces manual work by up to 80%, and enables real-time operational tracking across departments.

**I contributed to:**

- **Debugging & System Reliability:** Identified and resolved automation bugs across multi-system workflows. Built tools for recovering stuck jobs and implemented queue monitoring for improved stability.
- **Testing & Quality Assurance:** Developed unit and integration test suites using Pytest and custom test pipelines to ensure code reliability and functionality. Ensured the reliability of GraphQL APIs and integrations with platforms like Slack, Gmail, SharePoint, and Asana.
- **Frontend Redesign:** Worked on the user interface for workflow construction panels, dashboards, and team management pages using ReactJS with atomic design principles and Vite. Enhanced drag-and-drop workflow visualisation and ensured mobile responsiveness. Utilised Figma for UI/UX follow-up of design rules
- **System Integration:** Collaborated with Bridge engineers to ensure seamless synchronisation between CRM, scheduling, and communication platforms.
- **Workflow Optimisation:** Helped improve automation logic and scenario generation, enhancing efficiency in background job processing and real-time orchestration.
- **Impact:** My testing and debugging work led to a significant reduction in bugs and improved platform reliability, while UI/UX contributions increased usability and adoption.

#### **Tech Stack & Tools:**

- **Backend:** Python, FastAPI, GraphQL (Strawberry), SQLAlchemy, PostgreSQL, Redis
- **Frontend:** ReactJS, TypeScript, TailwindCSS, Vite
- **Infrastructure:** AWS (S3, ECS, RDS, CloudWatch), Terraform, Docker, CI/CD
- **Monitoring & Automation:** Grafana Loki, Webhook Handling, AI-powered automation flows

**SOFTWARE DEVELOPER INTERN**, Kampala, Muyenga

**Clarke International University**, September 2024-December 2024

- Worked on Online Examination Monitoring System, a secure proctoring system designed to enhance the integrity of online assessments by integrating with existing educational platforms like Moodle and MIS
- Developed an online examination monitoring system using ReactJS (front-end) and NestJS (backend). Implemented advanced proctoring techniques and real-time monitoring capabilities,
- Built tools for lecturers to create and manage exams efficiently,
- Designed secure access and exam resumption features for students.
- Engineered seamless integration with Moodle for a unified experience.

- Ensured mobile responsiveness for accessibility across devices and utilised Figma to come up with mockups and wireframes for design thinking, user research, and prototyping
- Engaged in API development to create a robust backend system
- The project utilised Nest Restful APIs for the backend and React.js with Vite for the frontend.

**Impact:** Successfully delivered a robust system that strengthened assessment integrity, provided lecturers with powerful exam management tools, and offered students a secure, reliable testing environment with exam resumption features.

## **EDUCATION**

BACHELOR OF COMPUTER SCIENCE (In Progress) -University of the People

ADVANCED CERTIFICATE IN DATA SCIENCE AND MACHINE LEARNING - Refactory Academy  
September 2025

ADVANCED CERTIFICATE IN SOFTWARE ENGINEERING -  
Refactory Academy December 2024

## **OTHER CERTIFICATIONS**

- Prompt Engineering for AI Applications - ALISON, May 2025
- Microsoft Azure AI Essentials - LinkedIn, September 2025
- Python 101 For Data Science-COGNITIVE CLASS, June 2025

## **WEBSITE, PORTFOLIO, AND PROFILES**

<https://www.linkedin.com/in/immaculate-naviga-712450259/>

<https://github.com/immaculate098>

<https://immaculate-s-portfolio-nine.vercel.app/>

## REFERENCES

References available upon request