

JUDE NII KLEMESU COMMEY

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PROFILE SUMMARY

Backend-focused software developer with hands-on experience building and shipping RESTful APIs, authentication systems, and data-driven services using Python (Django, FastAPI) and Rust (Axum). Currently a Level 300 Computer Science student at the University of Ghana, working across three concurrent backend roles designing scalable architectures, implementing OAuth2/JWT authentication, and optimising database performance. Published open-source developer tooling on PyPI and GitHub, including a Python-to-native-binary compiler and a Rust-based terminal network monitor. Comfortable with Python, Rust, Bash, and SQL (MySQL/PostgreSQL), with a growing focus on cybersecurity and secure system design.

EDUCATION

University of Ghana, Accra, Greater Accra
Bachelor of Science, Computer Science

January 2024 - Present

KNUST Senior High School, Kumasi, Ashanti Region
General Arts

January 2021 - September 2023

EXPERIENCE

Backend Developer

September 2025 - Present

ARETÉ FORGE — Accra, Ghana

- Designed, developed, and optimised highly performant and scalable RESTful APIs, leveraging frameworks such as Django (Python) and FastAPI (Python) to handle high-volume traffic.
- Developed and deployed a custom web application (using FastAPI and PostgreSQL) for a client to automate the submission of 5+ manual forms, resulting in an estimated 70% reduction in administrative paperwork and processing time.
- Engineered and implemented a custom authentication and authorisation system for the new application, ensuring data security and a streamlined user login experience.
- Implemented best practices for API security, including the integration of authentication mechanisms (e.g., OAuth 2.0, JWT) across multiple projects.
- Focused on database efficiency and query optimisation to ensure low latency and fast response times, successfully deploying and maintaining services in cloud environments with a focus on continuous uptime.

Backend Developer

August 2025 - Present

Radiant Software Labs — Accra, Ghana

- Architected and deployed a dedicated news microservice (using Python), designed to scrape and clean data from multiple external sources about the University of Ghana, centralising the information in a database and exposing it via a high-performance API for 3+ downstream services.
- Authored a comprehensive system design plan for a new School Management System (SMS), defining the architecture and 5 core functional modules to ensure scalability and support for an anticipated load of 1,000+ simultaneous users.
- Developed and integrated a robust, multi-factor authentication (MFA) system for a critical ongoing project, implementing secure login flows that included standard email/password, phone-based credentials, and one-time-password (OTP) verification to enhance user security.

Software Engineering Intern

September 2025 - December 2025

Data Intelligence And Swarm Analytics Laboratory — Accra, Ghana

- Led a 3-person development team through a 10-week development cycle to build and successfully deploy DISAL Manager, a full-stack web application using React, Django, and PostgreSQL.
- Engineered and integrated 7 core operational modules (including onboarding, mentorship assignment, and member suspension workflows), streamlining internal processes and reducing administrative overhead.
- Integrated two critical third-party APIs (DocuSeal and Microsoft Teams API) to automate digital NDA signing and meeting creation, replacing manual paperwork and scheduling.
- Implemented a multi-step verification and authentication flow upon user acceptance, ensuring 100% compliance with mandatory first-time password changes and NDA signing for interns.
- Contributed to backend stability by implementing three major optimisations (server-side caching, request throttling, and load handling) to ensure smooth performance in a production environment.

- Resolved a complex DocuSeal webhook integration issue and a persistent CORS error within the first month of development, accelerating integration and feature delivery.

ACHIEVEMENTS

- 1st Runner Up Team — #IWD Global Techathon, Teen Course — Teens In A.I.

PROJECTS

Ambr — Terminal Network Traffic Monitor | ambr.niicommey.me

Tech Stack: Rust

- Built a fast, keyboard-driven TUI application in Rust for monitoring live network traffic on Linux, macOS, and Windows.
- Implemented live, hourly, daily, weekly, and monthly bandwidth usage views for at-a-glance system monitoring.
- Published as an open-source project on GitHub for cross-platform use.

PyBend — Python-to-Native-Binary Compiler | pypi.org/project/pybend

Tech Stack: Python, Rust

- Built and published a zero-configuration Python compiler toolchain on PyPI that packages Python applications into standalone native binaries with zero physical disk I/O at runtime.
- Designed a custom PEP 451 meta-path importer backed by an in-memory virtual file system (VFS), with a Rust bootloader using memory-mapping to load bytecode and C-extensions entirely in RAM.
- Implemented AST-based import tracing and tree-shaking, plus a CLI (build, bootstrap, inspect) and TOML-based configuration for reproducible builds.
- Achieved 100% pass rate across 49 Python tests and 2 Rust tests; released three versions (v0.1.0-v0.1.2) with automated CI/CD publishing via GitHub Actions.

Task Tracker | [Project Link](#)

Tech Stack: Python

- Built a CLI application that takes user input and categorises tasks as to-do, in progress, completed, or deleted.
- Stored and retrieved task records from a JSON file, printing formatted results back to the user.

Task Tracker Desktop | [Project Link](#)

Tech Stack: Python, PyQt5, JSON

- Built a cross-platform desktop version of Task Tracker using PyQt5, available for Linux and Windows.
- Persisted task data in a JSON file for lightweight local storage.

PROFESSIONAL TRAINING / CERTIFICATION

- Introduction To Cybersecurity — Certificate, November 2024 - December 2024
- #IWD Global Techathon - Teen Course — Certificate, March 2025

SKILLS

Languages & Frameworks: Python (Django, FastAPI), Rust (Axum), C, Bash

Backend & APIs: REST APIs, OAuth 2.0, JWT, Multi-Factor Authentication, Microservices

Databases: PostgreSQL, MySQL, SQL

Security: Threat Identification, Network Security, Information Privacy & Cybersecurity

Tools & Other: Git/GitHub, CI/CD, Microsoft Office