

JONATHAN DARKO ADOO

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SUMMARY

Results-driven Computer Engineering student at KNUST with expertise in full-stack development, robotics, and scalable systems. Led teams to deliver production-ready apps and win robotics competitions. Eager to contribute analytical, programming, and problem-solving skills in software engineering at a global tech firm.

EDUCATION

Kwame Nkrumah University of Science and Technology (KNUST)
B.Sc. Computer Engineering

Kumasi, Ghana
Expected Graduation: September, 2026

TECHNICAL SKILLS

Languages: Python, C++, JavaScript (ES6+), TypeScript, SQL
Frameworks & Libraries: React, Next.js, Node.js, Express, TailwindCSS
Databases: PostgreSQL, MySQL, MongoDB
Tools: Git, GitHub Actions (CI/CD), Docker, Linux (Ubuntu), REST APIs
Core Competencies: Full-Stack Development, Algorithms, Robotics (ROS2, Jetson, SLAM)

EXPERIENCE

Center for Scientific and Industrial Research(CSIR-INSTI)

Accra

Software Engineering Intern

July–Dec 2024

- Optimized website load times by 40% through code refactoring, image compression, and caching strategies.
- Collaborated on building interactive web dashboards using React and Node.js for ongoing research projects, reducing data analysis time by 30% and enabling real-time insights for cross-functional teams.

Mikrobot Academy

Accra & Kumasi

Robotics Trainer

Aug 2022–Present

- Instructed 50+ students in Arduino and LEGO EV3 programming; led 3 teams to win local robotics competitions.
- Designed hands-on training modules in electronics, sensors, and automation.

A2SV Hackathon

Remote

Frontend Developer

Nov–Dec 2023

- Led a 4-member team to integrate REST APIs and deliver a working MVP within 1 week.
- Advanced to quarter-finals for innovation and rapid prototyping capabilities.

PROJECTS

Full-Stack Discord-Style Chat App - *React, Node.js, PostgreSQL, WebSockets*

- Designed a scalable real-time messaging app with authentication and live updates.
- Optimized SQL queries and socket connections to handle high user concurrency.

Task-Matching Platform - *Next.js, TypeScript, MongoDB*

- Built an end-to-end task platform enabling user authentication, dynamic listings, and API-driven data management.
- Improved page load time by 35% through server-side rendering and API optimization.
- Deployed on Vercel with secure JWT-based authentication.

ROS2 Robotics Mapping Project - *Python, C++, ROS2 Jazzy*

- Programmed a Jetson-powered differential drive robot using RPLidar for real-time SLAM mapping.
- Implemented sensor data visualization and robot navigation in simulated and physical environments.
- Strengthened understanding of autonomous systems and sensor fusion.

CERTIFICATIONS

Google UX Design - Coursera (2023)

ACHIEVEMENTS & INTERESTS

- 1st Place World Robofest Unknown Mission Challenge
- Interests: Design innovation, open-source development, AI and robotics, mentoring young engineers