

# JONATHAN DARKO ADOO

adoojonathan412@gmail.com | +233206344001 | [Github](#) | [LinkedIn](#) | Accra, Ghana

## 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