

# PATRICK CHILUFYA BWALYA

Software Developer | AI & Web Development Specialist

Lusaka, Zambia

Portfolio: [rico-hub-code.github.io/code-hub](https://rico-hub-code.github.io/code-hub)

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## Professional Summary

Highly motivated and analytical Software Developer with strong experience in full-stack development, artificial intelligence integration, and cloud technologies. Skilled in building scalable applications using modern frameworks such as React, Next.js, and Node.js. Strong background in algorithm design, UI/UX implementation, API development, and technical troubleshooting. Possesses hands-on experience developing AI classification tools, geospatial mapping systems, and responsive web applications. Demonstrates excellent problem-solving skills, adaptability, and the ability to work effectively in team-based agile environments.

## Technical Skills

- Languages: JavaScript, TypeScript, Python, Java, SQL
- Frontend: React, Next.js, TailwindCSS, HTML5, CSS3, UI/UX Prototyping
- Backend: Node.js, REST APIs, Authentication, Server Logic
- Databases: MySQL, Firebase
- DevOps & Tools: Git/GitHub, Docker, VS Code, Figma, Adobe Photoshop
- AI/ML: TensorFlow basics, image dataset creation, model training pipelines
- Other: computer repair, graphic design for digital media

## Soft Skills

- Analytical Thinking
- Communication & Collaboration
- Leadership & Initiative
- Technical Documentation
- Time Management & Task Prioritization

## Certifications

- Huawei ICT Competition – Artificial Intelligence



- Huawei ICT Competition – Cloud Computing



## **Professional Experience**

### **Software Developer — Academic & Personal Projects (2022–Present)**

Developed multiple full-stack and AI-powered applications, including geospatial forest monitoring tools, image recognition systems, and responsive portfolio websites.

Implemented REST APIs, handled state management, optimized user interfaces for performance, and integrated AI models into web applications. Regularly use Git, CI/CD basics, and agile-style development workflows.

### **Transparency International Zambia — Data Collector (2025)**

Contributed to updating document tags and metadata on TI-Zambia systems. Ensured high levels of data accuracy and consistency across digital platforms. Additionally helped design visual assets for internal documentation, demonstrating versatility between technical and creative tasks.

### **Kenneth Kaunda International Airport — IT Intern (2024–2025)**

Assisted with daily management of IT systems including computer setup, troubleshooting, software updates, and maintenance of office networks. Gained hands-on experience diagnosing hardware issues and streamlining technical workflows within a high-security environment.

### **Mulungushi University — IT Intern (2023–2024)**

Performed repairs on computers, printers, and networking equipment. Designed banners and university media material. Supported staff with technical issues, improving operational workflow and ensuring minimal downtime for campus systems.

## **Education**

Bachelor of Science in Computer Science — Mulungushi University, Zambia (Expected Graduation Year / Completed Year)

## **Software Projects**

- **AI Tree Detection System** — Built a web-based AI tool that identifies tree species from satellite imagery using a custom-trained machine learning model. Integrated with Leaflet maps for global visualization.
- **Global Forest Map Dashboard** — Created an interactive React + Leaflet dashboard that displays tree locations, forest health statuses, and real-time conservation indicators.
- **Portfolio Website** — Designed and built a fully responsive portfolio to showcase projects, skills, and professional experience using HTML, CSS, JavaScript, and animations.

## **References**

Available upon request.