

## IVY WANJIKU NJUGUNA

Executive Partner & Instructor | React Native Developer | Accessibility Advocate

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Nairobi, Kenya

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### PROFESSIONAL SUMMARY

Multidisciplinary software developer and tech educator passionate about building inclusive, user-centric applications. Skilled in React Native, Kotlin, and accessibility-first design, with experience in both frontend and mobile development. A dynamic leader and co-founder of a digital literacy initiative focused on disability inclusion. Keen to join an innovative team where I can apply my technical strengths, creativity, and human-first approach to build real-world solutions.

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### EXPERIENCE

#### Executive Partner & Instructor

**Martial School of IT** — *Jan 2025 – Aug 2025*

- Co-led the transformation of Martial from a tech training school to an inclusive, accessibility-focused edtech organization.
- Designed and taught hands-on courses in Android development (Kotlin), web development, and digital accessibility.
- Built real-world projects with students, including disability-inclusive apps using React Native and Room DB.
- Collaborated on building AI-based learning tools and apps for non-verbal users and students with neurodiversity.
- Handled administrative leadership, partnership acquisition, and internal tech systems setup.

## Junior Software Developer

**Bata Shoe Company** — *Nairobi, Kenya*

*May 2024 – Jan 2025*

- Collaborated with the internal dev team to optimize and maintain Bata's inventory and POS systems.
- Supported migration of legacy systems to modern React-based dashboards for improved performance and user experience.
- Developed and tested modular frontend components using **React.js**, integrated with backend APIs.
- Participated in Agile sprints and contributed to bug fixing, code reviews, and team stand-ups.
- Assisted in implementing a responsive, mobile-friendly UI for staff dashboards used across multiple branches.

## Freelance Software Developer

*Remote / Project-based — 2023 – 2023*

- Designed and built mobile apps for small businesses and social impact projects.
- Specialized in building MVPs, proof-of-concept apps, and accessibility-integrated user interfaces.
- Assisted teams with converting Figma designs into responsive React components.

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## PROJECTS

### **NeuroBridge – AI-Powered Brain-Computer Interface**

*React • Python • Flask • EEGNet • WebSockets • Accessibility APIs*

- Converts simulated EEG brain signals into text, speech, or smart device actions.
- Built using React frontend + Flask backend with real-time classification using CNN (EEGNet).
- Integrated accessibility features: text-to-speech, sign language (GIFs), dyslexia-friendly fonts, and dark/light themes.

- Inclusive by design: supports users with motor disabilities, non-verbal communication, and neurological disorders.

### **Finance Aggregator App**

*React Native • Kotlin • Room DB • Firebase • Accessibility Tools*

- Cross-platform app that displays and stores total balances from M-Pesa, M-Shwari, KCB, Co-op, and more.
- Built custom UI cards in native themes (bank colors), with screen reader support and offline access.
- Features redirect links to loan apps, budgeting tips, and spending summaries.
- Supports visually impaired and dyslexic users with TTS and intuitive UI/UX flow.

### **Totes by Ivy – Product Showcase Web App**

*JavaScript • HTML • Tailwind CSS • Firebase*

- Ecommerce prototype website for selling tote bags with a clean, minimal “girly-tech” vibe.
- Integrated cart system, customer feedback form, and admin dashboard.

### **DSA Learner Platform**

*Python • Flask • SQLite • Bootstrap • Markdown Parser*

- Internal tool for students to learn Data Structures & Algorithms via notes, quizzes, and mini-assignments.
- Allows instructors to upload new challenges and final project tasks for certificate generation.

### **Sign-to-Speech Converter (Prototype)**

*TensorFlow.js • JavaScript • OpenCV • MediaPipe*

- Converts basic sign language gestures into voice output using webcam and custom-trained models.
  - Meant to be embedded into communication apps for users with speech impairments.
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## TECHNICAL SKILLS

### Languages & Frameworks:

JavaScript (ES6+), TypeScript, React Native, Kotlin, Python, HTML5, CSS3, TailwindCSS, Flask, SQLite, Java.

### Mobile Development:

React Native, Android (Kotlin), Firebase, Room Database

### Web Tools:

Figma, Git/GitHub, WebSockets, REST APIs, Flask, Firebase Auth

### AI / ML:

TensorFlow, EEGNet, Scikit-learn (for signal classification), NumPy, Pandas

### Accessibility Tools:

ARIA Roles, WCAG 2.1, Screen Reader Testing, Text-to-Speech APIs, Dyslexia Fonts

### Soft Skills:

Community leadership, project coordination, curriculum design, adaptability, fast learning, teaching

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## EDUCATION

### Bachelor of Science in Software Development

KCA University — *Graduated 2025*

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## CERTIFICATIONS

- Android Basics – *Google Developers*
  - Responsive Web Design – *freeCodeCamp*
  - Introduction to React – *Scrimba*
  - Introduction to DSA in Python – *Hackerrank*
  - Accessibility Fundamentals – *W3C / edX*
  - Git & GitHub – *Codecademy*
  - Building Inclusive Products – *Microsoft Learn*
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## PERSONAL PROJECTS INITIATIVES

- **Martial School of IT** – Co-founded & led tech-for-accessibility movement
  - **Jenga AI** – Helped design an AI learning assistant for neurodiverse learners
  - **Neurobridge 2.0** – Building a tech brand focused on inclusive software & mental wellness tools
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## OTHER HIGHLIGHTS

- Delivered a 30-minute tech talk on **Security on Rails** for mixed-audience conference
  - Designed UI/UX for a mobile-first mental health app
  - Passionate about tech for good, education, and inclusive innovation
  - Regularly hosts tech workshops for beginners, women, and people with disabilities
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## REFEREES

### 1. Erick Kiplangat

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### 2. Catherine Gachie

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