# FRANDEL WANJAWA

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↑ Nairobi, Kenya

## **EDUCATION**

Jomo Kenyatta University of Agriculture and Technology (JKUAT), Juja, Kiambu, Kenya

Bachelor of Science in Electronic and Computer Engineering, June 2025.

Second Class Honors (Upper Division).

Friends School Kamusinga, Kimilili, Bungoma, Kenya

Kenya Certificate of Secondary Education, 2018.

A-(minus).

The King David Preparatory-Kolanya, Kolanya, Teso-North, Busia, Kenya

Kenya Certificate of Primary Education, 2014.

400 marks.

## **EXPERIENCE**

### **Tethics Electrics Group**

#### **Co-Founder**

Apr, 2025 - Present

- Building diverse innovative solutions in the fields of AI, ML, and IoT.
- Sustaining a strong focus on climate action and sustainability.
- Coordinated the design and development of AI-powered embedded systems for environmental monitoring.
- Pioneered the integration of AI and IoT technologies in climate-smart agriculture systems to optimize irrigation, soil monitoring, and crop yield forecasting.

#### **Kenya Space Agency**

#### **TT&C Subsystem Lead**

Jan, 2024 - Mar, 2025

- Established a suitable implementation framework and work plan for the TT&C subsystem.
- Designed and Implemented a data visualization tool for the satellite data.
- Lead, mentor, and manage a high-performing engineering students' team, fostering a collaborative and results-driven work environment.
- Co-designed and implemented the communication circuitry for a nano satellite and proofed firmware for the communication subsystem.
- Resolved a preexisting backlog in the TT&C subsystem and ended up delivering a working model.

- Developed and implemented a comprehensive technology strategy to drive innovation and growth within the company.
- Laid the foundation for a robust technology infrastructure, ensuring scalability and reliability.
- Led the design and development of cutting-edge software solutions, leveraging emerging technologies to enhance product quality and user experience.

#### **EgyPro EA Limited**

#### **Engineering Intern**

Jan, 2023 – May, 2023

- Achieved real-time mitigation of electrical and mechanical faults in booster stations owned by Safaricom in Kiambu County.
- Ensured seamless transmission of telemetry data to the Egypro command center.
- Determined the most effective solutions to address the needs of various booster sites.

### Gearbox EA | | Fedha Electrics | | Untapped Global

#### **Engineering Intern**

Jan, 2022 – May, 2022

- Co-developed smart solutions addressing human challenges, including a smart water hub and speed limiter.
- Developed data dashboards for IoT sensors.
- Co-developed firmware for hardware designed by other engineers.

#### **Kenya National Bureau of Statistics**

#### **Census Enumerator**

July, 2019 - Aug, 2019

- Collected and recorded data on the population of Kenya during the 2019 National Population and Housing Census.
- Ensured accuracy and completeness of data collected.
- Provided support to other Census enumerators.

## **PRESENTATIONS**

#### 1. TT&C Subsystem best practices:

Organizer: Women in Engineering - Multimedia University, Kenya.

#### 2. TT&C subsystem in and out:

Organizer: Cubekraft, Kenya.

## **CERTIFICATIONS**

- 1. Getting Started with Artificial Intelligence IBM
- 2. Introduction to Cybersecurity Cisco
- 3. Robotics Dojo JKUAT-JICA

- 4. Build your first chatbot IBM
- 5. **Microsoft Al Fluency Course** Microsoft
- 6. Cloud for CTOs AWS
- 7. Getting Started with DevOps on AWS AWS
- 8. Project Management Foundations LinkedIn Learning
- 9. Career Essentials in GitHub Professional Certificate GitHub
- 10. Cybersecurity Awareness: Ransomware LinkedIn Learning
- 11. Delivering an Authentic Elevator Pitch LinkedIn Learning
- 12. Learn Emotional Intelligence: The Key Determiner of Success LinkedIn Learning
- 13. Learning to be Approachable LinkedIn Learning
- 14. Unconscious Bias LinkedIn Learning
- 15. Communicating Values LinkedIn Learning
- 16. ETL in Python and SQL LinkedIn Learning
- 17. Holding Yourself Accountable LinkedIn Learning
- 18. Persuading Others LinkedIn Learning
- 19. Complex Negotiation Tips LinkedIn Learning
- 20. Engineering as a Path to Leadership Society of Engineering Students
- 21. Cubesat Design and Development Italian Space Agency
- 22. Altium Education PCB Design Course Italian Space Agency
- 23. Cities and Climate Change UNITAR
- 24. Introduction to Machine Learning Kaggle
- 25. **Python Coder** Kaggle
- 26. **Python (Basic)** Hackerrank
- 27. Climate Adaptation and the Cost of Inaction LinkedIn Learning
- 28. Climate Justice and Sustainable Business Practices LinkedIn Learning
- 29. Diversity, Inclusion and Belonging LinkedIn Learning
- 30. Overcoming Procrastination LinkedIn Learning
- 31. Problem-Solving Techniques LinkedIn Learning
- 32. Smart Cities: Solving Urban Challenges Using Technology LinkedIn Learning
- 33. Navigating Environmental Sustainability: A Guide for Leaders LinkedIn Learning

## **SKILLS**

- Printed Circuit Board (PCB) Design
- Purchasing Processes
- Climate Change Adaptation
- Climate Change Mitigation
- Artificial Intelligence (AI)
- Machine Learning
- Natural Language Processing (NLP)
- IBM Watson
- Circuit Design
- Web Development
- Firmware Development
- Project Management

## **REFEREES**

Name: John Omwamba

Referee's position: Urban Planning Officer

Email: mailto:john.omwamba@un.org

City: Trieste

Country/territory: Italy

Phone number: +254720548208

**PEER MENTOR** 

Name: Ian Toyota

Mentor's position: Student Harvard University

Email: mailto:iantoyota@college.harvard.edu

City: Cambridge, Massachusetts.

Country/territory: United States of America.

Phone number: +254718345781

Name: Njeru Manegene

Referee's position: Lecturer ECE JKUAT

Email: mailto:njeru.manegene@jkuat.ac.ke

City: Nairobi

Country/territory: Kenya

Phone number: +254722540555