

JAMES NJUGUNA

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Electrical & Electronics Engineer

Electrical Installation & Wiring | Electrical Plan Interpretation | Fault Diagnosis in Electrical Systems | Fusion Splicing (Fiber Optics) | Router Configuration & Network Setup | Control Systems Engineering | Automation System Design | PLC Programming | Microcontroller Programming (Arduino) | C & C++ Programming | Autodesk Inventor & SolidWorks (CAD) | MATLAB/Simulink Simulation | Proteus Circuit Design | Welding for Electrical and Structural Work

PROFESSIONAL SUMMARY

Results-driven Electrical and Electronics Engineering graduate with a strong foundation in control systems and automation. Skilled in electrical installation and wiring, electrical plan interpretation, and fault diagnosis in electrical systems, ensuring accuracy, efficiency, and compliance in technical environments. Experienced in fiber optic splicing, router configuration and network setup, control systems engineering, and automation system design, with a strong background in PLC programming, microcontroller programming (Arduino), and C & C++ programming. Proficient in Autodesk Inventor & SolidWorks (CAD), MATLAB/Simulink simulation, and Proteus circuit design, with additional expertise in welding for electrical and structural work. Highly adaptable to new technologies, skilled in managing diverse field tasks, and committed to optimizing electrical, power, and telecom operations for peak performance.

Career Strengths

- **Analytical Thinking & Problem-Solving:** Effectively diagnoses electrical faults and develops practical solutions to restore system functionality and performance.
- **Critical Thinking & Decision-Making:** Makes accurate assessments during installations and technical tasks to ensure safety, efficiency, and compliance.
- **Attention to Detail & Accuracy:** Ensures precision in wiring, splicing, and interpreting electrical plans to deliver error-free technical outcomes.
- **Team Collaboration & Leadership Skills:** Works cooperatively with technical teams and contributes positively to shared engineering tasks and goals.
- **Communication & Interpersonal Skills:** Clearly communicates with clients and team members to ensure successful service delivery and coordination.
- **Time Management & Organization:** Manages multiple technical tasks efficiently while meeting deadlines and maintaining high work standards.
- **Adaptability & Flexibility:** Adjusts quickly to new technologies, tools, and environments, performing effectively in varied technical roles.

PROFESSIONAL EXPERIENCE

Splicing Technician | April 2025 – Present

Textline Africa – Murang'a Town

Key Contributions

- Installed fiber optic closures and Fiber Access Terminals (FATs), ensuring secure and low-loss cable terminations that boosted system reliability and minimized signal degradation.
- Deployed ADSS fiber optic cables across varied terrains, enhancing regional connectivity and reducing installation lead time through efficient routing strategies.
- Conducted precision fusion splicing on fiber strands, ensuring optimal signal transmission and



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reducing maintenance needs caused by poor splicing.

- Configured routers at client locations, personalizing settings and troubleshooting connectivity issues to ensure seamless internet access and customer satisfaction.
- Collaborated with field teams to plan splicing routes and resolve on-site challenges, enhancing coordination and meeting project deadlines consistently.

Electrician | May 2024 – July 2024

AP Electricals and Hardware – Nanyuki Town

Key Contributions

- Executed full-scale electrical installations, including cabling and fixture setup, ensuring all work complied with safety regulations and client specifications.
- Integrated electrical layouts with architectural plans, translating blueprints into actionable wiring systems that improved installation accuracy.
- Diagnosed electrical faults in building systems and machinery, applying structured troubleshooting techniques to restore functionality quickly.
- Performed electrical piping and conduit work, maintaining neat and secure routing that minimized risk of damage and simplified future maintenance.
- Conducted welding tasks to support structural and electrical installations, contributing to sturdy, long-lasting systems in both residential and commercial settings.

EDUCATION

Bachelor of Technology in Electrical and Electronics Engineering | August 2025

Murang'a University of Technology – Murang'a, Kenya (Second Class Honours, Upper Division)

Kenya Certificate of Secondary Education- B plain | 2020

St. Andrews Secondary School – Naivasha, Kenya

Kenya Certificate of Primary Education - B plain| 2016

Loldia Primary School – Naivasha, Kenya

ACADEMIC PROJECT

Smart Automated Green House - Designed and implemented microcontroller based system that uses sensors and actuators to monitor and automatically control temperature, soil moisture and light condition.

TRAINING & CERTIFICATIONS

- Science Contest Participation – St. Andrews Secondary School | 2020
- Math Contest Participation – St. Andrews Secondary School | 2020
- Kimutai Choge Leadership Foundation Skills Training | 2020

LANGUAGES

- English – Proficient
- Swahili – Proficient



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REFERENCES

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