



Tunde Mensah

Principal Hardware Engineer

Experienced in directing teams of up to 11 engineers and technicians through full-lifecycle embedded controller development, with 12 years designing, prototyping, and qualifying hardware across FPGA platforms and mixed-signal systems. Skilled in VHDL, MATLAB, signal integrity analysis, and design verification, having delivered analog front-end designs within \$6,310 per-unit material budgets.

CONTACT INFORMATION



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Staunton, VA 12345

KEY SKILLS

- VHDL
- FPGA platforms
- MATLAB
- Python
- Digital oscilloscopes
- Temperature chambers
- Design verification testing
- Schematic review
- Signal integrity analysis
- Linux
- Git

PROFESSIONAL EXPERIENCE

2021 - Present

Principal Hardware Engineer, Waynesboro Ridge Electronics, Waynesboro, VA

- Caught 13 defects before release on an industrial control platform by instituting gate-level design reviews and running targeted FPGA simulations at each milestone.
- Directed 11 engineers and technicians through full-lifecycle development of 3 embedded controller boards, assigning tasks, reviewing schematics, and conducting weekly design audits.
- Deployed 23 ruggedized sensor systems to customer sites across 6 countries, coordinating factory acceptance tests and field commissioning within 14-day windows.
- Built and tested product prototypes using VHDL on FPGA platforms, verifying timing closure across 7 clock domains before committing to board fabrication.

2017 - 2021

Senior Hardware Engineer, Rockfish Valley Technology, Charlottesville, VA

- Directed 7 technicians during environmental qualification of power-conversion modules, completing thermal cycling in temperature chambers across negative 40 to 125 degrees Celsius.
- Identified 9 defects before release on a mixed-signal telemetry board by correlating digital oscilloscope measurements with MATLAB simulation outputs.
- Deployed 15 data-acquisition systems to manufacturing facilities in 4 countries, writing site-specific configuration guides and verifying signal integrity on arrival.
- Selected components for 8 analog front-end designs, confirming voltage tolerances and noise characteristics met the design specifications within \$6,310 per-unit material budgets.

2014 - 2017

Hardware Engineer, Shenandoah Peak Systems, Harrisonburg, VA

- Caught 4 defects before release on a motor-drive controller by running 72 hours of continuous load tests and reviewing signal captures on digital oscilloscopes.
- Monitored equipment operation during 19-day burn-in cycles, modifying clock distribution networks to bring jitter from 148 ps to 61 ps.
- Directed a 3-person technician team through board bring-up, assigning probe points and documenting pass/fail results for 46 test cases per revision.

EDUCATION

BS, Engineering

