Luis Angel Caceres

New York City, New York | luisangelcaceres00@gmail.com | (848) 234-5058 | linkedin.com/in/luis-a-caceres-2ab780241

PROFESSIONAL SUMMARY

Hardware Product Engineer with hands-on experience across RF/electronic systems, product prototyping, hardware/software integration, field validation, and structured troubleshooting. Skilled in component evaluation, circuit and system-level fault isolation, test planning, root-cause analysis, and Python/Bash automation. Experienced supporting prototype development, installation, commissioning, technical documentation, and cross-functional engineering execution.

EXPERIENCE

RF Field Engineer **Jan 2025 - Present**
AeroDefense

- Support hardware product development and R&D; prototypes through component evaluation, system integration, structured testing, failure analysis, and design/process feedback.
- Troubleshoot RF circuit boards and electronic systems above 1 GHz across sensors, antennas, cabling, networking, and Linux-based systems; isolate root causes and verify corrective actions.
- Use oscilloscopes, VNAs, spectrum analyzers, and signal generators to characterize RF/electronic behavior and validate system performance.
- Conduct nationwide site surveys, installation, calibration, commissioning, and field validation while evaluating RF propagation, connectivity, and system reliability.
- Develop Python/Bash tools for diagnostics, data logging, and test-results processing; create SOPs, test procedures, debug reports, and technical documentation.
- Coordinate directly with engineering teams and customers to reproduce issues, communicate findings, and drive technical problems to closure.

AI Quality Engineer **Nov 2025 - Present**
Handshake AI

- Design and execute structured technical evaluations, reproduce failures and regressions, and document expected-versus-observed behavior with actionable findings.
- Refine evaluation workflows and quality criteria with emphasis on repeatability, traceability, technical correctness, and clear engineering communication.

PROJECTS

RF Energy Harvesting System
RF / Board-Level Design & Validation

- Designed a 2.4 GHz RF energy-harvesting system integrating antenna, impedance matching, and custom rectifier circuitry; used ADS/CST simulation plus VNA and spectrum measurements to diagnose resonance shifts, parasitics, and implementation effects.

Solar-Powered Smart Crosswalk
Embedded Hardware Prototype

- Built an Arduino-controlled system combining solar power, piezoelectric sensors, wireless communication, and LEDs; created schematics, selected components, assembled hardware, and validated end-to-end operation.

Smart Plant Monitoring System (IoT)
Embedded / Sensor Integration

- Built a Raspberry Pi-based monitoring system integrating soil-moisture, temperature, and light sensors with automated alerts; handled hardware wiring, software processing, and functional validation.

UV-C Self-Sanitizing Door Handle
Electromechanical Product Prototype

- Developed a sensing/control prototype using CAD and a 3D-printed enclosure; iterated component placement, fit, assembly, usability, and functional performance through hands-on testing.

SKILLS

Hardware / Product Development: Component Evaluation, Prototype Development, System Integration, Board/System Bring-Up Support, Root-Cause Analysis, Failure Analysis, Corrective-Action Verification
RF / Electronics: RF Circuit Boards, Antennas, Transmission Lines, Impedance Matching, S-Parameters, Analog/Digital Electronics Fundamentals, Sensors, Embedded Systems
Lab / Validation: Oscilloscopes, VNAs, Spectrum Analyzers, Signal Generators, Functional Testing, Verification & Validation, Test Procedure Development
Software / Automation: Python, Bash, MATLAB, LabVIEW, Linux, Git/GitHub, Data Logging, Test-Results Processing
CAD / Engineering Tools: AutoCAD, SolidWorks, Creo (Certified), ADS, CST, Schematic Capture, PCB Layout Fundamentals, Technical Documentation

EDUCATION

New Jersey Institute of Technology (NJIT) **May 2024**

B.S. Computer Engineering

CERTIFICATIONS

- AWS Certified Developer - Associate (2026)
- Creo Modeling Professional