
TECHNICAL SKILLS

Programming and systems: C++, Python, Java, ESP32, FreeRTOS, Arduino, Raspberry Pi, Flutter, Git; Ethernet, DHCP, VLANs, Cisco networking, and network monitoring.

Controls and electronics: Siemens PLC-based Locution fire alert system installation and configuration; 12 V power distribution; wiring and circuit troubleshooting; multimeter, oscilloscope, soldering, and component-level repair.

Design and analysis: AutoCAD; Autodesk Fusion; LTspice, MATLAB, PID controller simulation, schematic and circuit design, CMOS layout, and 3D prototyping.

Education

Texas State University | Bachelor's in Electrical Engineering & Computer Science

- Senior Design “Best Project - Faculty Choice” award winner for our team’s Android app controlled robotic drawing arm.
 - Programmed an ESP32 control system in C++ with FreeRTOS tasks and WebSocket communication for real-time robot control.
 - Developed a companion Android interface in Flutter and integrated software, network communication, and physical hardware for a team-built drawing robot.
 - Modeled and simulated analog and digital circuits using LTSpice, MATLAB, and PID Controller logic
 - Designed CMOS logic circuits using Microwind for layout and CMOS design optimization
 - Coded object-oriented applications in Java, utilizing UML diagrams for system architecture
 - Developed C++ software and Python scripts for data processing and control systems
-

Work Experience

Ford AV | Project Engineer

2026-Present

- Configure and troubleshoot IP-connected AV control and media equipment, including Crestron processors, Netgear AV switches, Biamp Tesira DSPs, and Dante audio devices.
- Investigated IP addressing, DHCP, VLAN connectivity, device discovery, and signal routing across interconnected systems during installation and commissioning.
- Diagnosed control and media connectivity issues across switches, DSPs, amplifiers, and endpoint devices while working through complex system configurations.

City of Austin, Wireless Communications | Radio Technician

2011 - 2017

- Diagnosed and repaired electronic systems in police, fire, and EMS vehicles, including emergency lighting, video recording, mobile computers, modems, trunked radios, and 12 V power distribution.
- Installed and configured Siemens PLC-based Locution fire alert systems used to notify firefighters of station calls.
- Used multimeters, oscilloscopes, soldering, and technical research to isolate unfamiliar faults and perform component-level repairs.
- Integrated Tomar, Whelen, and Code 3 siren and lightbar systems; installed and troubleshooted Panasonic Arbitrator recorders, Toughbook computers, and Stalker DSR radar units.

United States Marine Corps | Radio Systems Technician

2006 - 2011

- Monitored network connectivity with Orion Network Performance Monitor and investigated network service disruptions.
- Repaired VHF, UHF, HF, and SATCOM radio systems; installed RG58 and RG8 coaxial cable in vehicles and buildings.
- Diagnosed and serviced vehicle-mounted radio systems, antennas, and cryptographic devices to ensure secure and reliable tactical communications
- Configured Cisco switches and routers to extend network service to remote locations and administered user access through Active Directory group policies on Windows Server 2003.