Bryan Martinez – **Computer Engineer**

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EDUCATION & CERTIFICATIONS

Bachelor of Science - Computer Engineering – *University of Texas at San Antonio* — Graduation: **12/10/21**
Certified Entry-Level Python Programmer – *Python Institution* — Certification: **10/05/26**
Process Controls and Instrumentation – *Penn State University* — (In Progress) Certification: **03/08/27**
Software Development – *UCLA* — (In Progress) Certification: **07/21/27**

PROFESSIONAL EXPERIENCE

Optum – *NETWORK ENGINEER* — San Antonio, TX – **02/13/23 - Present**

• Design and integrate large-scale healthcare network infrastructure into Optum's enterprise production environment, ensuring reliable performance, scalability, and security.
• Configure and validate Cisco routers, switches, wireless controllers, and access points across production environments, troubleshooting Layer 2/3 connectivity and implementing redundant, secure network designs.
• Design IP addressing and VLAN segmentation for new network environments, supporting both remote-site and data-center integrations across the enterprise network.
• Monitor and analyze device sensor telemetry, including temperature, power, voltage, current, and fiber-optic light levels, to validate hardware health and troubleshoot network infrastructure.
• Developed a Python-based Network Port-Matrix Automation Tool to automate wireless access-point naming, switch-port allocation, and engineering documentation, reducing a previously manual network-design workflow.
• Integrate generative AI tools, including Microsoft Copilot, into network engineering workflows to accelerate technical research, troubleshooting, documentation, and task automation.

Cisco – *NETWORK ENGINEER* — San Antonio, TX – **03/03/25 - 03/06/2026**

• Supported The Home Depot Non-Store Network Refresh Project by analyzing MDF network infrastructure and executing network migrations across distribution centers, corporate offices, and headquarters locations.
• Configured, replaced, and upgraded Cisco Catalyst routers and switches during scheduled maintenance windows, implementing standardized configurations, software images, port assignments, and network connectivity changes.
• Troubleshot Layer 2/3, console, out-of-band, and connectivity issues during network migrations, resolving technical problems within maintenance-window timelines to minimize service disruption.
• Performed pre- and post-migration validations of device configurations, routing, network access, and connectivity; documenting results in detailed migration reports and identifying required follow-up actions.

ENGINEERING PROJECTS

Network Port-Matrix Automation Tool – Python

• Developed a Python-based automation tool to generate wireless access-point naming and switch-port assignments across Cisco switch stacks, replacing a manual engineering workflow.
• Implemented automated port allocation, WAP distribution, closet-based numbering, and validation logic to produce consistent deployment matrices.
• Generated formatted engineering reports and CSV outputs for use during network design and implementation.

Engineering Data Acquisition Framework – Python

• Developed a Python-based tool to log pressure, temperature, and flow-rate data for engineering analysis.
• Implemented sensor validation logic with defined operating ranges and PASS/FAIL status reporting to identify out-of-range measurements and prevent invalid data from being logged.

Engineering Portfolio Website – HTML, CSS, JavaScript

• Designed and developed a multi-page engineering portfolio website using HTML, CSS, and JavaScript to showcase technical projects, certifications, professional experience, and engineering coursework.
• Integrated project documentation, source-code references, technical screenshots, certificates, GitHub links, and downloadable resources to create a centralized platform for presenting engineering accomplishments

TECHNICAL SKILLS

Programming:	Python, C, C++, Java, HTML, CSS, JavaScript, Verilog HDL
Controls & Instrumentation:	Sensors, Analyzers, PLC Programming Fundamentals, Data Acquisition
Space & Aerospace:	Rocket Propulsion Fundamentals
Network Engineering:	Cisco Routing & Switching, VLANs, IP Addressing, Wireless Networking