Yash Patel

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Summary

Hands-on, multidisciplinary hardware systems engineer building tightly integrated, test-informed, and physics-grounded designs. At Phantom Works, led design, development, and qualification of first-of-a-kind hardware, aligning cross functional teams across design, test, and analysis. Known for systems thinking, initiative, and clear communication that drives real-world execution. Thrive where complexity meets collaboration by relying on first principles, fast iteration, and a bias toward functional clarity.

Education

Arizona State University – Master of Science in Electrical Engineering — Expected December 2026

University of Houston – Bachelor of Science in Electrical Engineering — December 2020

Work Experience

P3 Electrical Engineer - Advanced Technology Applications — February 2021 – Current

Phantom Works Space - Boeing Defense, Space & Security — *Kent, WA*

- Led a cross-functional team to deliver a fully integrated prototype system for manufacturing readiness validation.
- Designed in-house QA systems using low-cost COTS components, automating tests and improving consistency while reducing manual labor.
- Developed and integrated a vision system, enabling low-risk performance testing and enhancing QA capabilities.
- Conducted rapid hands-on electrical troubleshooting using oscilloscopes, logic analyzers, and DAQ systems during subsystem bring-up and validation phases.
- Partner with industry and mission stakeholders to develop advanced test capabilities for first-of-a-kind space hardware.
- Collaborated cross-functionally with mechanical, survivability, contamination, systems, production, and test engineering teams to deliver tightly integrated and validated products.
- Developed and automated test scripts using Python and LabView to streamline system validation processes.
- Authored test plans to ensure compliance with spaceflight-grade reliability standards (SMC-S-016, AIAA-S112).
- Liaised with government customers to adapt hardware and test plans to rapidly evolving mission requirements.
- Led capital improvement projects, driving long-term value and infrastructure modernization.

Intern - Electrical System Design Engineer — *May 2020 – August 2020*

- Supported the Satellite Host/Launch team by drafting verification plans, electrical requirements, and power budgets; contributed to wiring design and component compatibility reviews.

AppleCare Technical Advisor — 2016 – 2020

Apple Inc. — *Houston, TX*

Skills and Abilities

Electrical Debugging - Oscilloscopes, Logic Analyzers, DAQ Systems | CAD - CATIA, AutoCAD | Python | C++ | MATLAB | LabView | Data Acquisition - NI DAQmx, LabJack | PCB Design & Troubleshooting | Machine Vision - CNNs, ImageJ, Detection, Tracking and Classification | Multisim | PSpice | FRED Optical Simulation

Projects

Spacecraft Lighting Network System | *Spring-Fall 2020 - NASA JSC*

Prototyping of an Analog Television Transmitter | *Spring 2019 - University of Houston*

Project Lead - Space WiFi Mesh Network | *Fall 2018 - NASA JSC*