Ashutosh Nayak

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Career Summary

I'm a QA Engineer with 3 years of experience in Python, automation, and wireless testing. I specialize in end-to-end validation of wireless device ecosystems, working extensively with Python-based automation frameworks to run stress, stability, and peak throughput tests across various Amazon Devices. My current work involves wireless interoperability testing across a wide range of routers, ensuring performance, stability, and reliability. I contribute to a custom Python framework that supports feature validation for multiple Amazon devices. Experienced with Selenium, Pytest, TestRail, Git, and JIRA, I design and execute smoke, sanity, and regression test suites. I also use wireless frame analysis tools to troubleshoot complex connectivity and performance issues.

Technical Skills

Programming Languages and Frameworks: Python, Pytest, Django, HTML, CSS,

WLAN Technologies: 802.11(b/g/n/a/ac/ax/be), DHCP, PMF, WMM, Wi-Fi Roaming, Wi-Fi Personal Securities

(OPEN, WEP, WPA, WPA2, WPA3)

Performance Testing: Iperf

Logging/Debugging: Sniffer, Wireshark, wpa supplicant, tcpdump

Version control: Git, Github

Work Experience

Quality Assurence Tech

Aug 2022 - Present

Amazon Development Center India, Chennai

- WLAN Testing: Performed interoperability testing of Android-based FireOS Amazon Devices with 250+ Wi-Fi routers and mesh networks, validating connectivity across Wi-Fi security protocols including OPEN, WEP, WPA, WPA2, WPA3, and OWE. Covered features like Wi-Fi Roaming, Wi-Fi Multimedia (WMM), and benchmarked TCP/UDP performance.
- Developed and maintained Python-based automation frameworks using Selenium and Pytest to streamline test creation, execution, and reporting.
- Onboarded the Wi-Fi 6E automation test suite covering advanced scenarios such as OWE, TWT, PSC and non-PSC scanning, idle state behaviors, and more.
- Analyzed test results and metrics to identify trends, troubleshoot issues, and continuously improve software quality and test coverage.
- Led the migration of the team's legacy test framework to a standardized platform used across Amazon, contributing to code nativization and alignment with company-wide QA practices.
- Developed and maintained Selenium automation scripts in Python for Access Point UI testing, significantly reducing manual testing effort and boosting team productivity year over year.
- Tool Development: Contributed to the development team by identifying and fixing multiple bugs in an internal Django-based tool used for test and inventory management, improving its reliability and usability.

Certificates

<u>Selenium Webdriver with PYTHON from Scratch + Frameworks</u>

Agile Kanban: Kanban for Software Development Teams

Education

Gandhi Institute for Technological Advancement, Bhubaneswar.Odisha

2016 - 2020

B.Tech in Civil Engineering