ADARSH KUMAR SINHA

Software Engineer II [Python | Wlan | Automation | Test]

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Python Automation & Test Engineer with **5.10 years** of experience in Wireless / Networking domain with expertise in Wlan Protocol Validation, Wlan Pre-Certification , BT_Coex in Embedded domain of Semiconductor & Automotive industry

Work History

2016-12 - Current	Software Engineer II , Harman International , A Samsung Company , Bangalore
2016-03 - 2016-11	Software Engineer , Mindlance Technology, Bangalore
2014-07 - 2015-12	Software Engineer I , Microchip. Technology, Bangalore

Technical Skills

Programming Language : Python

Platform Framework : Android Comms Test Suite (ACTS) - Google

UI Framework : Selenium , Appium Webdriver

Test Framework : Robot framework

Application automation : Apple CarPlay & Google Android Auto

Mobile automation : iOS, Android

Python Packages : REST API, Pyautogui, Atomacos

WLAN Protocols : IEEE 802.11 a/b/g/n/ac

WLAN Certification : IEEE 802.11n - Represented at ATL - Wipro WFA Lab , India for Toyota OEM for 802.11n

Apple Certification : Wifi Performance - ATS Utility

Network & Transport Protocol : TCP/IP , UDP , DHCP , IPv4 , IPv6

Device Experience : Infotainment Carkits , Contoller , Access-point , Router , Switches

Customer Interaction : Apple , Google , Qualcomm , Cypress , Fiat-Crysler , Daimler , BMW

Kernel : Android, Linux, MacOS

Sniffer. : Wireshark, Wi-Spy, Omni-Peek, Sodera

Tools : Git, Jenkins, Appium Server, Xcode, ADB, wl, Confluence, JIRA, Elvis, Bugzilla, i P e r f

Certification

Pre - Certification on protocol 802.11n &. member of Wifi Alliance

Mist WiFi Certification by Mist University - Juniper

Google Certificate - Crash course on Python

Certificate - Mobile Automation with Robot Framework & Appium using Python

Certificate - DevOps Continuous Integration and Continuous Delivery Pipelines using Jenkins, Git

Project Details

Company : Harman International , A Samsung Company

Project : HMI Application / Platform layer Automation of Android / Linux based Car-kit & Android/iOS phones:

Device under Test : Wifi functional test , Wifi role testing : Access-point, Station , CarPlay , BT_Coex

Project duration : 2018- 2020

Projects automated : Fiat Chrysler , Daimler , BMW , GWM , Ford , Toyota , Maruti

Language : Python

HMI. Application. automation of Infotainment Car-kit and Android / iOS Mobile phone for Wifi protocol validation , Wifi performance

Android platform automation of Wi-Fi stack using Android Comms Test Suite - ACTS FW of Google

Android/iOS Mobile Automation using Python & Appium

Web UI Automation of Car-kit , Access-point , Network switches using Python & Selenium

REST API testing using Robot framework with HTTP Methods for Web interface of Access-points

MacOS Desktop Application Automation using Python modules : Pywinauto , Atomacos

DevOps Continuous Integration and Continuous Delivery Pipelines using Jenkins, Git

Project : Wifi Pre-certification - 802.11n of Carkit

Projects automated : Fiat Chrysler , BJEV

Project duration : 2017

WLAN Pre-certification :802.11n, Involved in bring-up of WFA 802.11n test-bed in RF chamber

Understanding WFA Sigma Python framework along with execution

Represented at ATL - Wipro WFA Lab , India for Toyota OEM Carkit for Wifi - 802.11n WPA2

Understanding of WLAN MAC layer Protocols : 802.11 a/b/g/n/ac , WPA Supplicant

WLAN Protocol testing on Products based on wifi controller like : Cypress , Marvel , Broadcom , Microchip

WLAN Pre-certification - 802.11n - Involved in bring-up of WFA 802.11n test-bed in shield room - WFA

Represented at ATL - Wipro WFA Lab , India for Toyota OEM Carkit for Wifi - 802.11n WPA2 certification

Experience in Performance Testing using TCP/IP , UDP protocols & iPerf

Wpa_supplicant testing using wpa_cli utility , CPU wifi performance , Network layer IP testing - DHCP , IPv4 , IPv6

Wifi Inter-operability & Bluetooth Coex testing of Automotive OEM's & Mobile OEM's

Project : Wifi and BT_Coex IOP and Performance testing

Projects automated : Fiat Chrysler , BJEV , GWM

Project duration : 2016 - 2017

Wireless Performance Testing using iPerf with diff transport layer protocols : TCP/IP & UDP

Wifi wpa_supplicant testing using wpa_cli utility , CPU wifi performance , Network layer IP testing - DHCP

Inter-operability Bluetooth Coex testing of Automotive OEM Units

Involved in Joint IOP session of Harman Carkit IOP with Qualcomm chipset mobiles

Project Details

Company : Mindlance Technology

Project : **Wifi Home AP automation on Broadcom chipsets**

Project duration : 2016

Project: WLAN Home AP association with Broadcom chipset and enhancement of Association to Home AP when the home AP is available in range otherwise the radio goes off to sleep

Understanding background scanning and enabling background scanning for Home AP

Company : Microchip technology

Project : **Wifi Pre-certification - 802.11n - RF Chamber**

Projects automated : Microchip chipsets : CY920 , Multizone

Project duration : 2014-2015

WLAN Pre-certification - 802.11n - RF chamber

White box testing for Wifi protocol , fixing issues and integrating patches and generating builds

Testing Wifi features like Active and Passive Scan feature modifications of AP/STA mode , auto-connect feature , RSSI level and debugged reported by client Forming setup of modules for audio streaming

Education

Bachelor of Engineering. : Electronics & Communication - [72%]

Bangalore Institute Of Technology - (BIT) - VTU - Bangalore , KA

(63rd Rank among all the Private & Government colleges of India)

Interests   Played Badminton at District Tournament & Active member of CRY NGO