**Career Profile**

I am a Storage Validation Engineer & Python Automation developer with around **5 years** of experience. Currently Working with client Micron and previously worked for Intel and Seagate in the storage domain.  Participated in developing, testing and automation validation test solutions across different interfaces like NVMe and SATA for SSD products.

**Technical skills**

* Protocols: **NVMe & SATA**
* Python versions: **Python 3.7 & 2.7**
* Client Frameworks: **QTest, Common Trunk Framework, TWIDL, Flask, Checkbox**
* Unit Test Frameworks: **Pytest, unittest**
* Repositories: **Github, BitBucket**
* Protocol Analyzer Tool: **Teledyne** **LeCroy**
* Tracking tools: **Jira, Remedy**
* Logger mechanisms: **Tidbids, Splunk**
* Storage Tools: **FAST, IO meter, FIO, IPMI, superdm, SACLI**
* Other tools: **Sourcetree, TortoiseGit, Postman**, **Quickbuild, WinSCP, MobaXterm, mRemoteNG, Beyond Compare, WinMerge, VNC Viewer, Ansible basics**
* Operating systems: **Windows, Linux**
* Other known Languages: **C, Java**

**Employment History**

* **Current Organization**: Currently Working with **UST Global,** Whitefield, Bengaluru, Karnataka 560066 as Senior Product Development Engineer.
* **Previous Organization-2**: Worked with **HCL,** Sholinganallur, Chennai- 600119 as Lead Engineer.
* **Previous Organization-1**: Worked with **Cognizant Technology Solutions,** Sholinganallur, Chennai- 600119 as Associate.

**Academic Details**

* Completed **M.Tech in** **VLSI DESIGN** from PBR Visvodaya, Kavali, Nellore, A.P- 524201.
* Completed **B. Tech in** **ECE** from GIST, Kovur (M), Nellore, A.P- 524137.

### Personal Information

* Date of birth : 19-05-1993
* Present Address : H.No 101, Munireddy Layout, Kadubesanahalli, Bangalore-560103.
* Permanent Address : B8-118, Kasipalem, Buchireddypalem Mandal, Nellore, A.P -524305.

Client: **Micron Technology**

Products: **Raven QLC- ZNS (Micron BE Validation)**

Protocols: **NVMe**

Setups: **Standard, Quartz**

Customers: **Generic and Microsoft**

**Description:**

* Firmware verification role involves providing maximum white box test coverage to various SSD FW layers mainly FTL (Flash Translation Layer), FM (Flash Module). Our team responsible for designing, developing, testing, and maintaining validation test solutions across different interfaces (NVMe, SATA) for SSD products.

**Responsibilities:**

* In-hand experience in Hardware/Storage Devices testing both manually and automation with different kinds of testing tools for testing methods (Regression, Functional and Sanity testing).
* Skilled in debugging the failures and find the root cause with JTAG.
* Developed basic sanity test suite using pytest and integrated that scutio Framework to check all supported commands for ZNS.
* Manually reproduce the drive commands on SACLI in case of test failure and log the bug accordingly with corresponding debugger logs.
* Worked Asynchronous Power Loss feature and checked different features on soft shutdown & up, OS reboot, IPMI system reset IPMI power down & up, PDU immediate off & on, quarch hotswap.
* Created test scripts for Multi PF and single PF modes and for create, attach and delete namespaces and worked on several reset types while validating the NVMe features. Performed IO operations using FIO tool.

Client: **Intel Corporation**

Products: **CDR, CDRQLC (Intel SSD-CDE Validation)**

Protocols: **NVMe and SATA**

Setups: **Standard, Lecroy, PITA**

Products**: CDR, CDRQLC, YVRR**

Customers: **Del, Amazon, Cisco, HPE**

**Description:**

* CDE stands for Customer Test Development Engineering. After TDE verification for a generic product, we need to extend feature validation to customers. Based on customer PRD (Project Requirement Documents) need to develop new scripts for the required project.
* We have Continuous Validation running in place weekly. We have weekly Firmware for generic and customers as well. We need to develop modify test scripts as part of Jira stories or debug the issues for pre-sightings which are reported during conval execution.

**Responsibilities:**

* Need to adhere to SATA, NVMe specs, Customer Product requirement Documents and Firmware behavior while developing test for features.
* Identify firmware issues and provide manual steps to reproduce issues while promoting to Firmware sighting. Need to categorize in case of Non-Product Failure i.e., Lightswitch file, configuration issues, or environmental issues. Created test specs for known issues.
* Development and maintenance of Python Common Test framework responsible for Firmware validation in conval execution across products pools.
* Developed new Jammer and Emulator scripts for positive and negative testing using protocol analyzer tools like Lecroy for NCQ commands for multiple command execution.
* Extensively used tools IO tools like IO meter while developing in case of full or partial packing of the drive based on the requirement.
* Extensively used tidbids for logger inspection and test run history and QuickBuild for promoting the code changes for Master and sandbox environments while following agile methodology.
* Expert in total VCS lifecycle i.e., creating, merging, pulling, pushing, reviewing pull requests to ensure efficient and clean code with PEP-8 standards pushed to the repository.

Client: **Seagate Technology Holdings plc**

Project: **S200 (STesto Framework automation SSD validation)**

Requirement: **Storage Validation and Python automation**

Libraries: **Flask, paramiko, winrm, nmap, openpyxl, cx\_oracle, pdb, re, time, csv, JSON, threading, subprocess, requests, xml, logging, pip, pylint**

**Description:**

* Need to validate NVMe based SSD S200. Need to use STesto, Seagate internal Framework to run different categories of tests. Need to do perform regression testing for every release and perform script changes. In case of firmware issues need to log the bug.
* Need to develop automation environment and automate Framework to take care of entire test cycle. Test results and logs need to copy to network shares and logger UIs. Responsible to create internal web applications in case of automating repetitive tasks.

**Responsibilities:**

* Debugging and fixing issues reported in continuous validation run as pre-sightings and responsible for script changes and DUT files based on customer requirement.
* Involved in debugging regression issues raised as per work weeks wise and worked on different interfaces as part of black box testing.
* Developed test script to collect dump from superdm and developed web application using flask and deployed the application as service in Linux server. Used paramiko module as FTP.
* Developed automation script using NMAP to inspect for closed nodes. Used ansible agent to create the node to automate the installation of software and copying of dependency files.
* Consumed different customer APIs and parsed the data and supplied to Grafana statics dashboard. Implemented the logic for consuming and writing data from Excel worksheets, CSV and text files and populated that data to master database and application based on requirements.
* Established remote connections with Windows and Linux servers using ssh, paramiko and winrm.
* Owned customer conval runs by creating test plan files and supporting yml files and guided ITE team to run on different product pools.