

SHYAM SUDRA

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WORK EXPERIENCE

Celestica | Associate Engineer Software/Control Design

Dec'21 – Present

- Worked on various projects mainly covering networking protocols and building an automation infrastructure to verify the networking protocol and hardware aspects of different switches.

PROJECTS

1) Infrastructure Orchestration for Hardware Automation.

- Independently orchestrated the implementation of automated hardware testing infrastructure. This encompassed the **automation of the oscilloscope, waveform generator, thermal chamber, and Device Under Test (DUT)** functionality, leading to an impressive **80% reduction in operational overhead** for the hardware testing team.
- **Tools/Technologies:** Python, Pytest, PyVisa, PySerial, Paramiko

2) Automated Networking Protocols for SONiC (ACL, Sflow & BGP)

- Carried out the **manual and automation of networking protocol in SONiC**, including Access Control Lists (**ACL**), Sflow, and Border Gateway Protocol (**BGP**) using open-source **Spytest automation framework to execute comprehensive testing**, ensuring optimal functionality. Scripted libraries for different BGP & Sflow functionalities that were not there in the Spyttest; e.g.: BGP Nexthop & BGP Memory check etc.
- Crafted a test plan addressing the evaluation of **Voice VLAN, LLDP MED, and TACACS+ AAA** protocols.
- **Tools/Technologies:** Python, Pytest, Paramiko, Spyttest, IXNetwork, IxExplorer

3) Automation for Google project in CROBOT

- Performed automation for different modules including SDK and DIAG in CROBOT.
- **Tools/Technologies:** CROBOT, Python.

4) Advanced CPLD Testing and Issue Mitigation.

- Conducted CPLD testing across various white-box switches, yielding precise testing results. These results **facilitated the hardware team in promptly addressing issues** within a mere **two-week timeframe**.

5) Qualification of different Celestica's 400G & 800G platforms.

- Conducted protocol and throughput testing for Celestica's switches.

6) Platform Validation with ONL (Open Network Linux)

- Executed **platform testing on Celestica switches utilizing ONL (Open Network Linux)**, which covered tests related to **fan and PSU**.

7) Lab Network Establishment and Diagnostics.

- Actively contributed to the **establishment of the lab network**, taking charge of **debugging and swiftly resolving any network-related challenges** that arose.

8) Lab Reservation Tool.

- Created a lab reservation tool for Celestica's internal usage that **included topology details and reservation functionality** for sharing across different teams.

SKILLS

C | C++ | **Python** | **Networking** | **SONiC** | **Spytest** | Linux | Docker | **HTML-CSS-JS** | **ReactJS** | Figma

PERSONAL PROJECTS

1) BeatCode - A Leetcode clone ([Link to the site](#)) ([Link to GitHub](#))

- Built a Leetcode clone to practice coding questions which has code-compilation capability in 5 languages (Python3, C, C++, JAVA & Kotlin).
- **Tools/Technologies:** ReactJS, HTML-CSS-JS.

2) ChatApp - A WhatsApp clone ([Link to the site](#)) ([Link to GitHub](#))

- Created a WhatsApp-like live chat application with a real-time database where users can register and chat with other users.
- **Tools/Technologies:** ReactJS, HTML-CSS-JS, Firebase.

EDUCATION

- **Gujarat Technological University - Rajkot - (2017 - 2021)**
Bachelor of Engineering in Computer | **9.38 CGPA**

CERTIFICATION

- **Docker for Beginners & Hands-On (Udemy)**
([Link to Certificate](#))

PERSONAL DETAILS

- Date Of Birth: 31st Oct 1999
- Marital Status: Single
- Passport Number: U6636730

HOBBIES & INTERESTS

- 1) Part of the team that gives training for technical interviews at CEG, Chennai.
([Link to Certificate](#))
- 2) Sketching and Painting.