Abhinandan Sharma (Staff Software Engineer @ National Instruments (NI))

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Introduction

Around 4 years experienced software engineer with a strong track record of developing efficient codes, designing software, and solving complex problems across various domains and technologies. Adept at adapting to new technologies and delivering quality results in a timely manner.

My key skills and areas of expertise include:

- Proficiency in **C++** for software development.
- Strong knowledge of **Linux** operating systems and its usage.
- Hands-on experience with various **data structures** and **algorithms**.
- Experienced in **multithreading**, inter **process** communications, and **networking** protocols.
- Experience in low-level designing.
- Experience with **Git** for version control system. Proficiency in writing unit and functional **test cases**.
- Experience with DOORS tool for **documenting** system and entity level **requirements**.
- Exposure to **Docker**

Highest Educational Qualification:

M.TECH. (CS)	Aug 2019 – June 2021	IIIT Lucknow "1st Class(7.9 CGPA)"
B.TECH. (CSE)	Aug 2013 – May 2017	JNTUK UNIVERSITY "1st Class(74.9%)"

Work Experiences

Here are some highlights of the projects I've worked-on in my IT career:

Veristand | **NI** | Staff Software Engineer | Jan 2022 to present:

- **VeriStand Backend Development:** Proficient in backend development for the VeriStand application, specializing in HIL (Hardware-in-the-Loop) testing
- **Enhanced vsmodel Functionality:** Played a key role in expanding the functionality of vsmodel, a critical component within VeriStand.
- **External Model Support**: Developed and integrated external model support within vsmodel, providing an essential debugging and analysis tool for simulation models, particularly those using MATLAB.
- **XCP Protocol Integration**: Successfully incorporated support for the XCP (Universal Measurement and Calibration Protocol) within vsmodel, enabling seamless communication and calibration for simulation models compatible with VeriStand
- **Technologies Involved:** C, C++, STL, Python, Linux, Vscode, GIT, Gerrit, and leveraging a diverse skillset in various programming languages, tools, and version control systems.

Alarm Daemon System | NI | Staff Software Engineer | Jan 2022 to present:

- Developed and implemented an Alarm System module to indicate potential faults in the system and identify faults requiring corrective measures, minimizing network failures.
- Implemented logic to raise alarms and clear alarms if the data values exceed the threshold, proactively indicating potential faults in the system.
- Conducted thorough testing and debugging, ensuring reliability and accuracy of the Alarm Daemon System under different scenarios and conditions.
- Technologies Involved: Python,Redis-DB, Linux, Vscode, GIT, Gerrit

Tungsten Network | Innovaccer | Associate Software Engineer | June 2021 to Jan 2022:

- Contributed towards providing solution to automated Invoice generation.
- Developed functionality using Java, Angular, linked lists, tree data structures, and design patterns in Java, while implementing UnitTest for unit testing, used Linux, Python, Java, and BitBucket.

ChatBot for FeEasy| CRED | Software Engineer Intern | Jan 2021 to July 2021:

- Developed a module using open source Rasa stack for NLP in a distributed automated system. Implemented business logic in C++, worked on Unix/Linux operating systems.
- Worked on the customisation of RasaNLU and RasaCore in Linux environment.
- Developed Deep learning models using OpenCV C++.

ChatBot for Levi's| Cognizant | Software Engineer | dec 2018 to Aug 2019:

- Developed a C++ chatbot application for Levi's to enhance customer engagement and support
- Collaborated with quality assurance team team to conduct extensive testing , including regression testing, stress and load testing to ensure the chatbot's reliability and robustness.

Technical Skills

languages	C, C++,Python and familiar with, Java, JS, Angular.
Design	OOPs, SOLID principles, design patterns: factory, singleton, builder etc.
Computer Network	TCP/IP, DNS, DHCP, SSH, HTTP, SSL/TLS, TCP, UDP, ARP, Routing etc.
Data structure and algorithms	Arrays, lists, stacks, queues, trees, graphs, searching, sorting, backtracking, BFS, DFS, dynamic programming etc.
Linux OS	User management, file access/management, systemd services, SSH, rsyslog, rpm/dnf, networking, etc.
VCS, Build tool	Git, Gerrit, GitLab,BitBucket
Testing	gtest, MagicMock, UnitTest, robot framework.
Documentation	DOORS, confluence, SharePoint
Project Mgmt.	Jira, Agile, waterfall model