

Kritesh Semwal

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Professional Summary

Software Engineer with 8 years of experience in designing and developing mission-critical systems. Skilled in debugging complex issues, handling customer escalations, and delivering scalable, reliable systems. Proven ability to improve performance and drive results in dynamic, fast-paced environments.

Work Experience

Cloud Software Group (formerly Citrix), Bengaluru

Senior Software Engineer

Oct 2020 - Present

Software Engineer

Jan 2019 – Oct 2020

• **Technologies Used:** C, GDB, IPC, wireshark, Python, Flask framework, PostgreSQL, Redis, docker, kubernetes, Linux

• **NetScaler:**

- Netscaler is an application delivery controller that analyses application-specific traffic to distribute, optimize, and secure Layer4 -Layer7 (L4–L7) network traffic intelligently for web applications. I am part of Netscaler Config Infrastructure team responsible for maintaining and developing **configuration layer for Netscaler**.
- Designed and implemented new features for the NITRO API interface to configure NetScaler, focusing on robustness and scalability. Contributed to all components of the ConfigEngine and addressed critical issues across multiple C daemons, enhancing system performance and reliability.
- Engineered NITRO BATCH API to consolidate multiple NITRO API calls into a single request, significantly reducing network traffic. Delivered a **40% performance improvement** in NetScaler Console cloud service during large-scale configurations.
- Resolved critical customer issues, including crashes and memory leaks, through meticulous debugging and analysis.
- Developed the Go SDK for the NITRO API and implemented enhancements to the NITRO Python SDK, improving functionality and user experience.
- Working on [NetScaler Next-Gen API](#), a declarative, desired-state, and application-centric API that aims to abstract and simplify the low-level complexities of traditional NetScaler configurations.

• **NetScaler Console:**

- NetScaler Console service is a cloud-based solution that helps one manage, monitor, orchestrate, automate, and troubleshoot their NetScaler instances.
- Worked on the Console Advisory Connect feature, which automates the on-boarding of NetScaler instances to the NetScaler Console cloud service, driving increased adoption among netscaler customers.
- Worked on Netscaler Console Multi-Tenant config model for scaling config distribution to a large number Netscaler clusters following an eventual config consistency model. Designed and implemented microservices for various components in the control plane using Docker, AWS, and other cloud-native technologies.

Axiom Research Labs (Teamindus GLXP Mission), Bengaluru

Teamindus Skywalker

Apr 2018 – Dec 2018

Teamindus Ninja

Jul 2016 – Apr 2018

- **Technologies Used :** C++, Cmake, googletest, Java, Python, Flask Framework, PostgreSQL, Nodejs, Angularjs, influxdb, grafana
- Designed, developed and tested various mission-critical software modules required by Mission Control for monitoring and controlling spacecraft and the lunar rover.
- Designed and developed offline telemetry data processing and display software modules for data telemetered down from the spacecraft compliant to the [CCSDS](#) standard. Also developed an automated telemetry frame generation

software module for testing ground software components without hardware in loop.

- Designed and developed command scheduler which schedules telecommands from multiple payloads in round-robin fashion. Metrics logged to influxdb and monitored on Grafana.
- Contributed to development of rover console used for controlling lunar rover. Was developed using node-js, couchdb, angular-js-5. Also designed and developed web-socket server and client libraries for communication between web application and native C++ applications.

Abyeti Technologies PVT. Ltd, Bengaluru

Software Developer Intern

Feb 2016 – Jun 2016

- **Technologies Used** : Angularjs (JavaScript), Ninja Framework (Java)
- Worked as a full-stack developer on CodeGround, a platform enabling recruiters to filter candidates based on skill-based tests. Developed new features and resolved critical issues to enhance platform performance and user experience.

Education

Jaypee Institute of Information Technology, Noida

2012 – 2016

B. Tech in Computer Science - 75%

Technologies

Languages

Proficiency: C, C++, Python

Familiarity: Java, Golang

Software

Database: MYSQL, POSTGRESQL

Tools: Git, Docker, Kubernetes

College Projects

[github](#) 

A3KTORRENT

- **Technologies Used**: Python, GTK3+, Twisted (Networking Library)
- Developed a desktop client that enables users to download files via the BitTorrent protocol. The app allows users to search for torrents, download, and save them with ease, featuring an interactive GUI and desktop notifications.

[github](#) 

IMDB SEARCH APP

- **Technologies Used**: Python, Flask Framework, JQuery
- A minimal web app where the user enters the name of an actor/actress in a search box. The application uses web crawling to search IMDb, fetches the top 3 movies of the actor/actress, retrieves the top 3 most helpful user reviews for each movie, and displays the results in a tabular format.