

# Deepanshu Garg

## Software Design & Development



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**15+ years of experience in C++ (98/11/14/17)** across **application development, product engineering, and system programming**, with a proven ability to **design, develop, and deliver high-quality software features end-to-end**.

- Expert in **object-oriented programming, design patterns, and software architecture**, with a strong focus on **performance, scalability, and maintainability**. Demonstrated expertise in **building high-performance, reliable, and cross-platform applications** with a deep understanding of **Windows internals and system-level integration (WIN32 APIs)**.
- Proficient in **multithreading, STL, and performance optimization**, with extensive experience developing and enhancing **endpoint security and telemetry-driven solutions in Windows environments**. Strong background in **debugging complex systems, unit/integration testing**, and ensuring **system reliability across SDLC phases**.
- **Hands-on experience integrating AI-driven components**, including using **Microsoft Presidio (NER-based)** for detecting and redacting sensitive information, and **OpenText IDOL Education** for large-scale data analysis and entity extraction to enhance data privacy and intelligence capabilities.
- Experienced in **mentoring engineers, conducting code reviews**, and driving **engineering excellence in Agile and CI/CD environments**. Additional experience in **Python and C#** for automation and tooling, **database development** (Oracle, SQL Server), and **telemetry data collection** to improve product reliability.
- Recognized for **technical leadership, analytical problem-solving**, and effective collaboration across **cross-functional, multi-cultural teams**. **AWS Certified Cloud Practitioner** with exposure to **cloud-based tooling and infrastructure**.



## Work History

2024-03 - **Senior Staff Software Engineer**

Current Zscaler, Bengaluru

**Touchless Troubleshooting.**

**Vision:**

Proactively identify problematic devices from Grafana dashboard alerts, trigger remote log fetch, including packet captures, generate real-time traffic, create a log bundle, and upload it for Zscaler support to review without customer involvement.

**Impact:**

~20% reduction in customer-reported issues, which translates to improved release delivery, which, in turn, gains customer trust.

**Accomplishments**

- **Log Export Redesign:** Led the redesign of the log export functionality into a modular, plug-and-play architecture. This foundational change simplified the integration of new export methods and was a critical prerequisite for enabling the remote log fetch automation.
- **Remote Log Fetch:** Designed and implemented an automated remote log collection process. It's a three-component design, starting from the UI, server, and client. REST APIs and C++ are the majority tech stacks, with the usage of AI (Windsurf) to speed up the development process.
- **PCAP Generation:** Enhanced the pipeline to generate PCAP on the end user machine so that we can have simultaneous PCAP from Cloud trace and Client for single session PCAPs. The challenge here was to accommodate different scenarios related to PCAP generation.
- **Traffic Generation:** Once implemented, this will also generate the real-time traffic to get the intended packets.

### **Identify and enhance telemetry events.**

#### **Vision**

Identify the gaps in telemetry, improve the quality of telemetry events, and introduce more dashboards by reaching out to different teams within Zscaler.

#### **Accomplishments**

- **ZEvent Annotation:** Developed a system-state-aware event annotation feature using **Windows APIs** that filters out noisy events generated during sleep mode, improving data quality by nearly **30%**. This enhancement significantly increased the accuracy and reliability of Grafana dashboard analytics, enabling better decision-making and event insights.
- **Installer Events Telemetry:** Built telemetry capture for installer failures during upgrades or fresh installs, providing clear visibility into root causes. This data-driven insight empowered the team to address quality gaps and improve installation success rates across customer machines.

2019-07 -

### **Lead Software Engineer**

2024-03

Micro Focus India (Now OpenText), Bengaluru, IN

- Contributed to multiple products across various verticals, starting with **Content Manager** (ERP solution for document lifecycle management) by working on **backend development in C++** and **thick client UI in MFC**, delivering features and resolving customer issues.
- Contributed to **SmartCipher** (Endpoint Security Software) by transitioning from **monolithic** to **microservices architecture**, implementing **User Authentication**, and gaining exposure to **gRPC** and **cloud infrastructure**.
- Delivered **multiple tech talks** and actively participated in **Hackathons**, sharing knowledge and contributing innovative solutions.
- Developed a **POC** exploring **FUSE** for file system drivers, gaining valuable insights into **File System** and **WinAPIs**.
- Initiated and led **Knowledge Sharing sessions** to break the culture of module ownership, promoting cross-functional knowledge and enabling developers to work on any module by sharing expertise with new joiners and team members.

### **Module Lead**

2018-02 -	Siemens, Bengaluru, IN
2019-07	<ul style="list-style-type: none"> <li>Worked on segregating calculation module from big C++ solution.</li> <li>Have packaged independent libraries and hosted all of them on cloud using Conan.</li> <li>Managing package over antifactory reduced code size and ensured integrity as it maintained only single copy.</li> </ul>
2015-08 -	<b>Senior Software Engineer</b>
2017-06	Sapiens India, Bengaluru, IN
2013-12 -	<b>Senior Software Engineer</b>
2015-08	CitiusTech Healthcare Solutions India, Mumbai, India
2010-12 -	<b>Software Engineer</b>
2013-12	TRX Technologies India Pvt Ltd, Bengaluru, IN



## Products

### **ZScaler Client Connector (Mar 2024 - )**

#### **Senior Staff Software Engineer**

ZCC is a lightweight software that enables secure access to the internet and internal applications by connecting users to the Zscaler cloud platform. It ensures traffic is inspected and protected from threats, providing seamless security and improved network performance regardless of user location.

### **Content Manager (May 2023- Mar 2024)**

#### **Lead C++ Developer**

Micro Focus Content Manager is a governance based enterprise content management system designed to help government agencies, regulated industries and global organizations manage their business content from creation to disposal.

### **Smart Cipher (Jul 2021 - Jun 2022 )**

#### **Sr. C++ Developer | Team Lead**

SmartCipher simplifies unstructured data security, delivering control over the use and proliferation of sensitive files for secure collaboration and improved privacy compliance. It provides persistent file protection, and complete control and visibility, over file usage and disposition across platform.

### **Content Manager (Jul 2019 – Jul 2021)**

#### **Sr. C++ Developer | Scrum Master**

### **Krawal (Feb 2018 - Jul 2019)**

#### **Sr. C++ Developer | Module Lead**

### **ALIS (Aug 2015 - Jul 2017)**

#### **Sr. C++ Developer**

**Universal Viewer (Dec 2013 - Aug 2015)**  
**C++ Developer**



## Awards

- Awards, appreciations from end user, Client, support and management.
- Spot awards for various deliveries and appreciations from clients.



## Certification

2023-03      AWS Cloud Practitioner



## Education

2005-06 -    **Bachelor of Technology: Computer Science**  
2009-06      Guru Nanak Dev University - Amritsar



## Skills

C++ 98/ C++ 11/ C++ 14

Data Structures

STL

Win32 APIs (File System I/O)

Distributed Systems - GRPC, Microservice Architecture

Database - SQL, KQL, Postgress

Secondary language - Python/C#

Version Control System: Git, SVN