Himanshika Singla

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Profile Summary

Software Engineer with 3 years of experience in C++ development, Windows internals, UI modernization, and system-level programming. Skilled in multithreading, STL, debugging (WinDbg, Sysinternals), and performance optimization. Adept at building scalable solutions, mentoring peers, and delivering production-ready software in Agile environments.

Education

Chitkara University Punjab, India
Bachelor of Engineering in Computer Engineering; GPA: 9.71/10 *Jul 2022*

Experience

Quick Heal Technologies Pune, India
Software Engineer *Jan 2022 – Present*

- Migrated core product UI from legacy MFC to modern Sciter-based framework using C++/Win32 APIs, improving performance and maintainability by 20%.
- Implemented multithreaded modules and resolved concurrency issues such as race conditions and deadlocks.
- Developed POC for detecting third-party remote access tools, enhancing real-time endpoint protection.
- Transferred utilities (File Vault, Uninstallation, Data Backup, System Info) to Sciter SDK, improving modularity.
- Enhanced Anti-Fraud product with system-level detection features, reducing incidents and improving reliability.
- Resolved high-priority production issues using WinDbg, Process Monitor, and Sysinternals tools, decreasing customer-reported defects by 35%.
- Collaborated with QA, product, and support teams to deliver urgent fixes/features, cutting bug resolution time by 40%.
- Worked in Agile environment with bi-weekly sprint cycles, contributing to timely delivery of security features.

Quick Heal Technologies Pune, India
Software Engineer Intern *Jan 2022 – Jun 2022*

- Engineered MFC-based desktop app to automate UI testing workflows, improving validation efficiency by 40%.
- Implemented Windows Hooking APIs to record/replay input events, reducing manual testing effort by 35%.
- Partnered with QA teams to ensure system compatibility, improving usability and integration smoothness by 25%.

Projects

Windows Event Capture & Replay Tool — C++, MFC, Win32 Hooks, UI Automation
GitHub Link

- Developed a desktop tool to capture and replay input events, automating QA workflows and reducing manual testing by 40%.
- Created reusable test workflows to improve GUI validation accuracy, reducing software bugs by 35%.
- Integrated tool into QA pipelines, decreasing overall testing cycle time by 25%.

C++ Competitive Coding Judge (DSA Evaluation Engine) — C++, STL, Multithreading, Algorithms
GitHub Link

- Built backend engine simulating online coding judge workflows with thread-safe concurrent submissions.
- Implemented efficient algorithms using Trie, hash maps, and segment trees for validation and output matching.
- Optimized performance of large test cases with custom memory pools and lazy evaluation, reducing execution time by 30%.

Technical Skills

Languages: C, C++, Java, HTML, CSS, JavaScript
Frameworks & Libraries: MFC, SciterJS, RapidJSON, REST APIs, RabbitMQ, Win32 APIs (Hooks, Events)
Tools & IDEs: Visual Studio, VS Code, WinDbg, DebugView, Process Monitor, WinMerge, Postman, FileZilla, vSphere
Version Control & PM: Git, GitHub, SVN, Jira
Operating Systems: Windows (Advanced), Linux (Basic CLI & Scripting)
Web & UI Tech: HTML, CSS, JavaScript, Sciter SDK, UI Automation
Core CS Concepts: DSA, System Design (Scalability, API Design, Caching, Messaging), Multithreading, STL
Databases: SQL Server, MySQL

Leadership Experience

Quick Heal Technologies Pune, India
Mentor / Team Lead

- Mentored new hires on Windows internals, debugging, and SDLC best practices.
- Led feature planning with QA/Product teams, reducing delays by 20%.
- Proposed and implemented automated risk checks and triage workflows.