

Shantanu Milind Sable

C++ Backend Engineer | Linux, IPC, Multithreading

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PROFILE

C++ Backend Engineer with 2+ years of experience building high-performance, low-latency systems on Linux for financial transaction processing, with strong expertise in system-level programming, IPC (shared memory, message queues, UNIX domain sockets), and multithreading. Improved latency by ~25% through optimized IPC and thread synchronization, increased throughput by ~1.5x via enhanced concurrency in transaction workflows, and reduced memory usage by ~15% through efficient allocation strategies. Experienced in maintaining robust, production-grade systems and resolving critical performance bottlenecks.

WORK EXPERIENCE

Tata Consultancy Services Ltd.

11/2023 – Present

Achievements/Tasks

- Designed and developed high-performance **C++ backend systems** for financial transaction processing, ensuring **low-latency** and **high reliability** in production environments
- Built **multithreaded** system-level components on **Linux**, improving concurrency and optimizing CPU utilization for high-throughput workloads
- Engineered **Inter Process Communication mechanisms** using shared memory, UNIX domain sockets, and message queues to enable low-latency inter-process communication
- Designed modular and scalable backend components using **object-oriented** design principles, improving maintainability and data handling efficiency with **STL** containers (vector, map, unordered_map)
- Diagnosed and optimized production issues related to **memory management** and **runtime performance**, improving **system stability**.

Database & Data Processing

Developed and optimized **embedded SQL (Pro*C)** and **PL/SQL queries** in high-performance C++ backend systems, reducing query latency and improving data retrieval efficiency for transaction processing

PROJECT

TCS BANCS Securities Processing India

- Developed and maintained backend modules in C/C++ and Pro*C for securities processing platforms used by clients including Singapore Stock Exchange, HSBC, Haitong Securities, and Investec Capital Services.
- Conducted thorough code reviews, elevating team performance and ensuring top-notch quality standards.
- Thrived in Agile environments, actively contributing to sprint planning and fostering a culture of continuous improvement.
- Developed, tested and deployed Back-end components and given support at the time of Go Live with the help of Team.

SKILLS

Languages

C, C++, SQL, Pro*C

Core Concepts

Data Structures, Object-Oriented Programming, Multithreading, IPC, Memory Management, Linux, Git, GitHub, PostgreSQL, PL/SQL

EDUCATION

Bachelor of Engineering in Information Technology

AISSMS Institute of Information Technology in Electronics and Telecommunication

CGPA: 7.87

Higher Secondary Certificate in Science

St. Xaviers High School, Central Board of Secondary Education

Percentage: 71%

AWARDS

- Received **On-the-Spot Award** for resolving critical backend issues in production.
- Awarded **Star of the Month** for outstanding performance and contribution to backend development.
- Recognized with **Star Team Award** for successful delivery of project milestones.