Abhishek Atole

C++ Developer | Software Engineer (Entry-Level)

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PROFESSIONAL SUMMARY

Engineering graduate with expertise in **modern C++** and **system-level design**. Delivered **cross-platform software** like **virtual file systems** and **visual analytics tools** using **CGAL** and **Qt**. Strong **debugging** and **testing** experience in **Linux-based environments**. Passionate about contributing to **large-scale software** with **high-performance** demands.

TECHNICAL SKILLS

- **Languages:** C++14/17/20 (Advanced), C (Advanced), Java (Intermediate), Python (Basic), SQL (Basic)
- **Tools & Libraries:** STL, Qt6, CGAL, GDB, Valgrind, CMake, Git, Docker, VS Code
- **OS & Systems:** Linux (Ubuntu, Kali, Arch), Windows
- **Databases:** MySQL (Basic), PostgreSQL (Basic)
- **Concepts:** OOP, Modular Architecture, File Systems, Memory Management
- **Practices:** Agile, SDLC, CI/CD, Unit Testing, Debugging, GitHub/GitLab
- **Learning:** Teamcenter (Self-study), SAFe (in progress)

PROJECT EXPERIENCE

SQL Inventory App (Side Project) – *Java, MySQL, JDBC, CLI, RDBMS*   **May 2025 – Ongoing**

- Built a **command-line inventory manager** supporting **CRUD operations** using **Java JDBC** with **MySQL**, reinforcing **SQL querying**, **data normalization**, and **user input handling**.

Polygon Boolean Operations Visualizer | GitHub   **February 2025 – March 2025**

C++14, Qt6, CGAL, CMake, Cross-Platform

- Built a **cross-platform C++ GUI application** using **CGAL**, **Qt**, and **CMake** to visualize **2D polygon Boolean operations**, tested on **Linux and Windows**, handling **50+ polygon cases**.
- Designed **modular architecture** with **automated unit testing** (20+ cases), achieving **90%+ code coverage** and reducing **debug time by 30%**.
- Delivered **real-time visualization**, **data import/export**, and **image export**, used by **100+ users**, improving **usability** and **learning efficiency by 40%**.

Generalized Data Structures Library | GitHub   **February 2025 – March 2025**

C++17, Templates, OOP, CMake, Exception Safety

- Implemented a **header-only library** with **template-based linked lists** (singly, doubly, circular), ensuring **type safety**, **performance**, and **extensibility** for **100+ use cases**.
- Configured **CMake** for **cross-platform builds**, reducing **build time by 25%** and enabling **continuous integration**.
- Designed **exception-safe APIs** using **RAII**, aligned with **modern C++ best practices**, and authored **comprehensive documentation**, cutting **integration time by 40%**.

Custom Virtual File System | GitHub   **January 2025 – February 2025**

C++, CLI, File I/O, Shell Commands, OS Simulation

- Engineered an **in-memory virtual file system** simulating **inode**, **superblock**, and **file descriptor management**, reducing **debugging time by 50%**.
- Developed a **custom UNIX-like shell** with **15+ commands** (create, open, read, write, ls, stat, lseek), incorporating **permission control** and **memory management**, achieving **100% command coverage**.
- Automated **build and test scripts** using **Makefiles**, ensuring **cross-platform reliability** and boosting **development speed by 30%**.

EXTRACURRICULAR ACTIVITIES

Software Engineering Virtual Intern — *EA Sports (Forage Simulation)*   **February 2025 – March 2025**

- Refactored **simulation module,** increasing **realism** and **performance**. Reduced **game load times** by 20%.

Field Officer | *Adarsh Gramin Vikas Sanstha*   **August 2024 – November 2024**

- Processed **30K+ applications**, reducing **error rates** by 20%. Led **adoption in 200+ rural sites**.

EDUCATION

Bachelor of Engineering (Electronics & Telecommunication)   **August 2020 – August 2024**

Shri Sant Gajanan Maharaj College of Engineering, Shegaon | CGPA: 6.79

CERTIFICATIONS

- **Advanced C++** — Udemy
- **C Programming** — LinkedIn Learning
- **Linux Fundamentals** — LinkedIn Learning
- **Networking Basics** — Cisco Networking Academy

- **Teamcenter (intro) –** Siemens (in progress)
- **Agile Fundamentals –** LinkedIn Learning (in progress)