

# Gagan Bansal

Chandigarh, India — bansalgagan2004@gmail.com — +91 9996892070  
LinkedIn — GitHub — LeetCode — Portfolio

## Education

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**Chitkara University**, Chandigarh  
B.E. in Computer Science

Oct 2022 – May 2026

CGPA: 9.34

**Allen Career Institute**, Kota  
Senior Secondary (Non-Medical)

Apr 2020 – Jun 2022

## Technical Skills

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**Languages:** C, C++, Rust

**Web + Backend:** React.js, Node.js, Express.js, REST APIs, SOAP, MongoDB, SQL

**CS Fundamentals:** Data Structures and Algorithms, OOP, OS, CN, DBMS, System Design

**Tools and Platforms:** Git, GitHub, VS Code, Jupyter, Linux, macOS, AWS (Basic)

**Soft Skills:** Problem Ownership, Structured Thinking, Cross-Functional Communication

## Experience

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**Research and Development Intern**, Quark  
Chandigarh

Jan 2026 – Present

- Working on Quark Publishing Platform (QPP), contributing to server-side systems using C++, Objective-C, Perl, and SOAP-based services in a large, long-lived codebase.
- Analyzing and updating legacy server code to support Apple Silicon (ARM) architecture, involving platform-specific dependencies and build pipeline understanding.
- Contributing to the integration between QuarkXPress Server and QPP, focusing on request handling, data flow, and maintaining backward compatibility across publishing pipelines.

## Projects

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**KVMemo – Multithreaded In-Memory Key-Value Store – C++**

GitHub

- Designed and implemented a high-performance in-memory key-value store in modern C++ supporting concurrent client access via TCP.
- Built a thread-pool architecture with task scheduling and synchronization using `std::mutex`, `std::sharedmutex`, and atomic counters to optimize read-heavy workloads.
- Developed runtime metrics collection (QPS, latency, hit/miss ratio, active connections) for observability and performance analysis.

**FlarePP – MERN**

GitHub

- Built a role-based content collaboration platform enabling creators to upload footage, assign editors, and directly publish to YouTube using the YouTube Data API.
- Implemented project workflows with revision requests, improving collaboration and content delivery efficiency for creators and editors.

**CDS Library – C**

GitHub

- Built modular header files for String, Stack, and Linked List with reusable C interfaces.
- Improved memory management and reduced redundancy using macros and pointer abstraction.

## Achievements

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- Solved 1200+ Data Structures and Algorithms problems across LeetCode, GFG, and CodeChef.
- Achieved LeetCode Contest Rating of **1618**.
- Selected for UCA Batch at Chitkara University – Top 3% out of 2500+ students.
- Finalist** – Shopclues Smart Cataloging Hackathon (Top 5 of 70+ teams), Chandigarh, 2024.