

Abhay Sharma

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github.com/git-of-abhay | linkedin.com/in/abhaysharma12

git-of-abhay.github.io/portfolio/ | codeforces.com/profile/unlinked_list | leetcode.com/u/rageee/

WORK EXPERIENCE

Ecowell India

Remote

Software Development Engineer Intern

April 2026 – September 2026

- Built and launched a customized CRM within a three-person engineering team, supporting 10,000+ customers across 8 locations and operational coordination across 18 teams.
- Developed web and mobile applications using React, React Native, JavaScript, and TypeScript; integrated 48 API endpoints with a Node.js, Express.js, and PostgreSQL backend supporting 1,000+ daily tickets and 10,000+ daily transactions.
- Designed GPS-based attendance and real-time location-tracking workflows for 1,000+ employees using mapping APIs, with role-based data visibility across 8 user roles.
- Automated 70+ workflows across sales, service, attendance, payments, and logistics, coordinating cross-platform dependencies and multi-step API interactions.

PROJECTS

CF Insights

cfinsights.netlify.app | github.com/git-of-abhay/cfinsights

React, TypeScript, JavaScript, HTML, CSS, Codeforces API

- Independently designed, developed, and deployed a competitive programming analytics platform used by 20,000+ users, with approximately 200 daily active users.
- Integrated Codeforces APIs to retrieve and analyze ratings, contests, submissions, solved problems, topic-wise performance, and competitive-programming activity.
- Generated personalized performance insights and improvement plans that identify weak topics and guide users toward targeted practice decisions.
- Supported peak usage exceeding 100 API calls per second while maintaining a responsive analytics experience.

Relief Net

github.com/Git-of-abhay/relief-net

Python, FastAPI, WebSockets, SQLite, JavaScript, PWA

- Built an offline-first local-network messaging application with 7 REST endpoints and 1 WebSocket route, enabling room communication, member presence, moderation, and CSV exports without cloud services.
- Implemented a persistent offline queue with automatic 2-second reconnection, service-worker caching, and configurable 30-day message retention.
- Added bounded 200-message history, per-client rate limiting, origin validation, role-protected moderation, and audit logging across 3 persistent SQLite entities.
- Verified messaging, WebSocket delivery, offline persistence, security, moderation, exports, and burst-rate handling through 8 passing automated tests.

LRU Cache – C++20

github.com/Git-of-abhay/lru-cache-cpp

C++20, STL, Templates, Multithreading, CMake, GitHub Actions

- Implemented a reusable LRU cache with average $O(1)$ lookup, insertion, update, and eviction, plus an interactive CLI and thread-safe wrapper.
- Validated correctness with 100,000 randomized reference-model operations, edge cases, exception checks, and an 8-thread stress test covering 40,000 reads.
- Benchmarked 200,000-operation workloads, achieving up to 57.6 times the throughput of a linear vector baseline; passed 4 GCC/Clang CI configurations including sanitizer checks.

TECHNICAL SKILLS

Languages: C++, Python, JavaScript, TypeScript, SQL, HTML, CSS

Frameworks and Runtimes: React, React Native, Node.js, Express.js, Django, Flask, FastAPI

Data and Databases: PostgreSQL, MySQL, SQLite, NumPy, pandas, scikit-learn, Matplotlib, Seaborn

Tools and Systems: Git, Linux, CMake, GitHub Actions, REST APIs, WebSockets, pytest, Ruff

EDUCATION

Indian Institute of Technology Madras

Bachelor of Science (BS) in Data Science and Applications

2024 – Expected 2028

ACHIEVEMENTS

- Advanced to Round 2 of Meta Hacker Cup 2025.
- Achieved Pupil rank on Codeforces and solved 500+ problems across competitive programming platforms.
- Founded and led Spark, a competitive programming community for IIT Madras BS students, organizing regular problem-solving sessions.