AYUSH BANSAL

Software Engineer – C++ | Systems Programming | IIT Roorkee

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EXPERIENCE

SDE2 at Microsoft   📅 June 2023 - Jan 2025

- Designed and optimized Windows system-level features using C++ and XAML, focusing on efficient inter-process data sharing.
- Collaborated across engineering, QA, and product teams to deliver high-throughput features with minimal latency overhead.
- **Skills:** C++,Operating System, XAML, Multithreading

INTERNSHIPS

Microsoft   📅 May 2022 - Jul 2022

- Developed ONDC-based buyer applications; contributed to backend and data synchronization modules.

Libre Space Foundation   📅 May 2021 – Aug 2021

- Contributed to Google Summer of Code 2021 by creating a Python-based CLI tool to detect anomalies in space telemetry data using machine learning, outputting results in JSON format.
- Developed customizable web-based reports with interactive graphs for detailed data analysis.
- **Tech Stack:** python, javascript, React, Figma

SOCIETIES & MEMBERSHIPS

Chief Technical Coordinator

Information Management Group, IIT Roorkee

📅 Apr 2022 - Jul-2023

- Led a team of 70+ students at IIT Roorkee to develop IT solutions and manage infrastructure for 10,000+ users, ensuring alignment with institutional goals.

EDUCATION

Bachelor of Technology (Electronics & Communication)

Indian Institute of Technology, Roorkee

📅 2019-2023   📍 Roorkee

- 9.152 CGPA

PROJECTS

Chakra

- Chakra is a new and improved Content Management System. It is a Component Based Content Management System
- Designed XML-based rendering system where UI components are compiled to HTML dynamically, inspired by compiler theory and DOM parsing.

R-Drive

- Built a resilient cloud-backed platform enabling secure data access for 10k+ users at IIT-R.
- Focused on system design, **data serialization**, and concurrency-safe endpoints
- **Tech Stack:** React, Redux, Django, Postgres, AWS.

TECHNICAL SKILLS

- **Computer Languages:** C++ (Modern C++17/20), Python, Bash, XAML, JavaScript, SQL
- **Core Expertise:** Multithreading, Synchronization, Memory Management, Network Programming (TCP/UDP), Socket I/O, IPC
- **Softwares & Tools:** Docker, Git, Linux shell utilities
- **Interests:** Multithreading, Websockets, Software Development, DSA, Web Development

ACHIEVEMENTS

- Selected in GSoC 2021 with Libre Space Foundation
- Secured All India Rank 1048 in JEE Advance 2019
- Secured All India Rank 975 in JEE Mains 2019