

Armaan Ahmed Ansari

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SUMMARY

Backend & Systems Engineer focused on Go-based backend systems, networking, and concurrency. Experienced in building real-time applications, protocol-driven services, and infrastructure tools using gRPC and WebSockets. Comfortable working close to the OS, including bare-metal and low-level systems development.

EDUCATION

IIIT Sonapat

2022–2026

B.Tech in Information Technology

Relevant Coursework: OS, CN, DBMS, DSA

PROJECTS

LeetBattle – Real-time Multiplayer Game *Go, React, TypeScript, WebSockets, PostgreSQL*

GitHub — Live Demo

- Built a real-time 5v5 multiplayer engine with matchmaking, synchronized state, and event-driven gameplay.
- Implemented WebSocket routing with reconnection handling and low-latency session management.
- Engineered deterministic state-sync packets to minimize desync and improve gameplay stability.

Tunneled – Reverse Tunneling & Proxy Tool *Go, gRPC, HTTP/2, TCP, Docker, MySQL*

GitHub

- Designed a reverse tunneling system to securely expose local HTTP and TCP services without static IPs or router configuration.
- Built a daemon-proxy architecture using gRPC bidirectional streams with application-level multiplexing via connection IDs.
- Added observability using MySQL-backed request metrics and in-memory counters for active connections and tunnel health.

Gorrent CLI – BitTorrent Client

Go

GitHub

- Implemented core BitTorrent protocol features including bencode parsing, peer communication, and request pipelines.
- Built piece selection and choke/unchoke logic with protocol-compliant message encoding.
- Optimized IO paths to support stable concurrent multi-peer downloads.

Additional Work

- **GoWARC (Internet Archive) – Open-Source Contribution, Go:** Fixed a panic caused by case mismatch and improved documentation. PR: [Link](#).

TECHNICAL SKILLS

Languages:

Go, C, C++, JavaScript, TypeScript

Backend:

Node.js, Express.js, REST APIs, WebSockets, gRPC

Systems:

Linux programming, concurrency, synchronization, POSIX threads

Tools:

Git, Linux, Docker, vim, gdb, React, Protobuf

Databases:

PostgreSQL, SQL, MongoDB