

Pujan Khunt

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EDUCATION

SNK School <i>Class XII (ICSE)</i>	2023 92.0%
Birla Institute of Technology and Science, Pilani <i>B.Sc in Computer Science</i>	Expected Jun 2027 CGPA: 8.3

EXPERIENCE

Member, Competitive Programming Club <i>Scaler School of Technology</i> <ul style="list-style-type: none">Solved 750+ algorithmic problems on Codeforces and LeetCode strengthening data structures and problem-solving skills.Built practical projects by using DSA/CP knowledge like ring buffer, procedural maze generator and recursive UI renderer.	Aug 2024 – Aug 2025
Core Member, Chess Club <i>Scaler School of Technology</i> <ul style="list-style-type: none">Organized chess tournaments with 50+ participants using FIDE pairing standards.Created custom college Elo rating for students with a dashboard for managing it.	Aug 2025 – Present

PROJECTS

Clipboard Synchronization Tool <i>Go, WebRTC, WebSockets, AES-256-GCM</i> <ul style="list-style-type: none">Engineered a cross-platform, peer-to-peer clipboard synchronization tool in Go, utilizing WebRTC DataChannels for direct and secure device-to-device communication.Developed a zero-knowledge WebSocket signaling server for peer discovery, securing all clipboard payloads with AES-256-GCM encryption and SHA-256 key derivation prior to transmission.Achieved seamless multi-device synchronization and NAT traversal using Google STUN servers, supporting native system clipboard access across Linux, macOS, and Windows.
Advanced Authentication API <i>Node.js, Express.js, MongoDB, JWT, Nodemailer</i> <ul style="list-style-type: none">Architected a secure, RESTful authentication service using Node.js and MongoDB, strictly adhering to the MVC design pattern for a scalable codebase.Designed a robust session management system with JWTs, supporting concurrent multi-device logins, automated refresh token rotation, and invalidation of compromised tokens.Hardened API security by implementing bcrypt hashing, rate-limiting, and HTTP-only cookies, integrated with an automated email verification workflow via Nodemailer.
Redis Lite <i>Go, TCP Sockets, RESP Protocol, Concurrency</i> <ul style="list-style-type: none">Developed a lightweight, high-performance in-memory key-value data store in Go, utilizing raw TCP sockets to concurrently handle multiple client connections.Engineered a custom Redis Serialization Protocol (RESP) parser and an Append-Only File (AOF) persistence mechanism utilizing goroutines for thread-safe background disk syncing.Benchmarked the server against standard <code>redis-benchmark</code> suites, achieving a throughput of over 189,000 Requests Per Second (RPS) with a p50 latency of ~0.13ms.
Personal Developer Blog <i>AstroJS, TypeScript, SSG, GitHub Actions</i> <ul style="list-style-type: none">Engineered a high-performance, statically generated developer blog using AstroJS to document technical architectures and software engineering concepts.Implemented Astro Content Collections paired with TypeScript for strict, type-safe validation of Markdown frontmatter and robust content management.Architected an automated CI/CD pipeline utilizing GitHub Actions to seamlessly build and deploy the static site upon repository updates.

SKILLS

Languages: Go, Java, JavaScript/TypeScript, SQL, HTML, CSS (TailwindCSS)
Frameworks & Libraries: SvelteKit, AstroJS, Next.js
Databases & Cloud: MongoDB, PostgreSQL, AWS
Tools & Environment: Git/GitHub, Docker, Docker Compose, Neovim, Linux (Arch)
Core Concepts: Low-Level Design (LLD), SOLID Principles, Operating Systems, Networking