# Pranshu Gupta

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## Education

**Dronacharya College of Engineering** — **Expected Graduation: 2028**
*B.Tech. in Computer Science (CSE)* — *CGPA: 8.0/10*

## Experience

**DRDO - Defence Research and Development Organisation** — **June 2026 – July 2026**
*Software Intern* — *Delhi, India*

- Developed a **Spring Boot** backend using layered architecture to automate atmospheric data ingestion and integrate ML-based electromagnetic wave propagation predictions.
- Designed a secure **PostgreSQL** database with Flyway migrations, optimized indexing, pgcrypto encryption, and HikariCP connection pooling to support efficient data access.
- Implemented **JWT authentication** and Role-Based Access Control (RBAC) to secure API endpoints, and integrated **Micrometer** metrics to monitor API performance and prediction latency.

## Projects

**EchoLocal** — Link | GitHub

- Built a voice-first news application using React, TypeScript, and Supabase, transforming RSS stories into AI-generated audio summaries in English, Hindi, and Hinglish.
- Engineered continuous feed playback with a shared audio player, next-story prefetching, and bounded clip caching to prevent overlapping narration and redundant audio generation.
- Implemented authenticated server functions and persistent PostgreSQL story caching, preserving news availability during refresh failures and playback continuity as new stories load.

**ShrinkLink** — GitHub

- Generates collision-free short codes and redirects to original URLs in under 100ms via server-side routing.
- Indexed short codes for O(1) lookups; records click count per link for usage analytics.
- Fully responsive across all screen sizes.

**Persona** — GitHub

- Users create a public profile page at a single URL aggregating all their social and web links.
- Schema supports custom labels, ordering, and visibility toggles per link; profiles served via dynamic routing.
- Dashboard allows real-time add, reorder, and delete with instant reflection on the live public profile.

## Achievements

- **1000+** problems solved across Codeforces (**Pupil**, max. rating 1252) and LeetCode.
- Secured **1st place** in two inter-college CP contests: **Code Manthan** and **Debug & Decrypt 3.0**.

## Technical Skills

- **Languages**: C/C++, Java, JavaScript, Python, SQL, HTML/CSS
- **Frameworks**: Spring Boot, React.js, Next.js, Node.js, Express.js, Tailwind CSS
- **Databases**: PostgreSQL, MongoDB
- **Tools**: Git, Linux, Maven, JUnit