Prince Lad

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Professional Summary

Computer Science student (9.5/10 CGPA) specializing in systems programming, high-performance tooling, and scalable software architecture. Proven track record of architecting Git-aware utilities, robust backends, and modular engines leveraging Rust, C++, Python, and TypeScript.

Education

CHARUSAT University Nadiad, Gujarat, India
Bachelor of Technology in Computer Science and Engineering *2023 — May 2027*

- CGPA: 9.5 / 10
- Coursework: Data Structures & Algorithms, Operating Systems, Database Systems, Software Engineering.

Technical Skills

- **Languages**: Rust, C++, C, Java, Python, TypeScript, SQL, Dart, Solidity.
- **Systems & Frameworks**: Linux, Git Internals, React.js, Next.js, Node.js, Flutter.
- **Developer Tools**: Git, GitHub, Docker, VS Code.
- **Databases**: PostgreSQL, Oracle SQL, Convex.

Selected Projects

Lead Developer, Forge — Git-Aware Terminal Project Manager (Rust) 2025 — Present

- Engineered a high-performance TUI leveraging Ratatui and libgit2 to unify version control workflows and project analytics with non-intrusive state tracking.
- Architected asynchronous repository indexing to achieve sub-100ms responsiveness, enabling deterministic progress inference from local commit histories.
- Designed a concurrent state synchronization pipeline utilizing Rust's message passing (`mpsc` channels), effectively isolating heavy Git I/O operations from the main thread to guarantee uninterrupted terminal redraws.

Full Stack Developer, Stockify — Inventory & Billing Platform (TypeScript/Next.js) 2025 — 2025

- Developed a multi-tenant inventory platform utilizing Next.js, Express, and MongoDB, securing API endpoints with RBAC and JWT authentication.
- Automated QR-based POS billing and scalable PDF invoice generation, effectively eliminating manual data entry overhead and minimizing transaction errors.

Lead Developer, SquareLogic — Chess Game (Python/Pygame) 2024 — 2024

- Architected a modular chess engine featuring robust move validation, algebraic notation parsing, and O(1) state tracking to support infinite undo/redo functionality.
- Minimized AI decision latency by implementing Minimax with Alpha-Beta pruning; maintained strict logic separation to render a sustained 60-FPS Pygame UI.

Certifications

- Design and Analysis of Algorithms — NPTEL (IIT Madras)
- Data Structures and Algorithms using Java — NPTEL (IIT Kharagpur)
- Machine Learning with Python — IBM (Coursera)
- Full Stack Web Development (MERN) — Packt/Coursera
- Hashgraph Developer Certification — Hashgraph Association

Leadership & Experience

Organizer — C Programming Hackathon 2025 — 2025

- Directed a systems programming hackathon for 100+ participants, conceptualizing 15+ rigorous problem statements focused on CLI utilities, algorithmic optimization, and memory management.