

Lakshya J.

B.Tech. in Computer Science and Engineering
Indian Institute of Technology, Jodhpur

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GitHub LinkedIn Codeforces

EDUCATION





| Degree/Certificate | Institute/School | CGPA/Percentage | Year |
|--------------------|---|-------------------|--------------|
| B.Tech. CSE | Indian Institute of Technology, Jodhpur | 9.24/10 (Current) | 2023-Present |
| Senior Secondary | R.S. Memorial International School | 94.6% | 2020-22 |
| Secondary | St. Anne's Sr. Sec. School | 95.4% | 2012-20 |

EXPERIENCE

- SDE Intern - Android Development** Dec. 2024 - Apr. 2025
PMStack [▶ Playstore Link](#)
 - Engineered **Pinnzo**, an application for organizing and summarizing reading materials for working professionals.
 - Partnered with startup founders to conceive and develop product features, reducing production time by **30%** through implementing **Agile** methodologies and **2-week** sprint cycles.
 - Executed comprehensive testing and performance optimization routines that decreased crash rates by **40%** and improved app load speed by **25%**.

PROJECTS

- LIBR - A Moderated, Censorship-Resilient Digital Forum** Feb. 2025 - Apr. 2025
Go, Docker, Distributed Hash Tables, Cryptography, Modular Design, PostgreSQL [GitHub Link](#)
 - Utilized **Byzantine Consistent Broadcast**, cryptography, and **DHTs** to ensure **90% message delivery accuracy** across dynamically changing groups of nodes.
 - Engineered a **modular system** with dynamic role-specific installation, including UI and moderation APIs, achieving independent module deployment and integration for **3 distinct roles**.
 - Executed **risk analysis** covering **20+ identified risks**, optimizing system reliability with rigorous **end-to-end testing**.
- GitCury - Git Companion for Automation** Apr. 2025
Go, Cobra, RESTful APIs, Gemini API, CLI Utilities [GitHub Link](#)
 - Engineered a Git automation tool that generates **precise, context-aware commit messages** using the Gemini API, improving code clarity for **5+** multi-developer workflows.
 - Developed RESTful server mode and **15+** alias-based CLI commands to streamline operations across **20+** repositories, supporting both batch and single-file workflows reducing commit time by at least **42%**.
 - Integrated many **configurable parameters** for dynamic workflow adaptation, enabling precise root folder filtering and custom command mappings, resulting in significantly **better user experience**.
- 2nd Swap - Secure, Intelligent Second-Hand Trading** Feb. 2025 - Mar. 2025
Node.js, Express.js, MongoDB, Google OAuth 2.0, Cloudinary [Website Link](#)
 - Architected and deployed the complete backend within **1.5 weeks**, implementing **12+** RESTful API endpoints with **99.8% uptime** for this startup.
 - Developed an AI-powered verification system that generates personalized, item-specific questions and automates the validation process, reducing manual intervention by **20%** while processing over **30+** daily queries.
 - Implemented a secure object verification mechanism using **OCR-based code recognition** to uniquely identify and validate items, ensuring accurate verification for all listings.
- C3P - Collaborative Content Platform** Dec. 2024
React.js, Express.js, Node.js, MongoDB, Social Media APIs [GitHub Link](#)
 - Constructed a full-stack platform enabling collaborative content creation with **8** user roles and streamlined publishing to **4** major social media platforms, reducing publishing time by **65%**.
 - Devised role-based access control mechanisms and content ranking algorithms driven by **6** key engagement metrics, increasing user retention by **22%**.
 - Orchestrated automated publishing workflows and revenue-sharing schemes for monetized content, processing **\$1200+** in transactions with **0** payment errors.
- GenCLI - Semantic File Retrieval Tool** May 2024 - Jun. 2024
Go, Cobra, Gemini API [GitHub Link](#)

- Optimized file indexing performance from **19.2 seconds/file** to **1.2 seconds/file** by implementing batch processing and parallelization techniques, significantly improving efficiency.
 - Enhanced user experience with **7+ customizable themes**, providing a visually appealing and easy-to-use interface tailored to diverse user preferences.
 - Achieved **sub-second search response time**, enabling fast retrieval of indexed content across **50+ files** with advanced AI-driven semantic search capabilities.
- **Travel Companion App - Your Adventure, Simplified** Jan. 2024 - Mar. 2024
Flutter, Firebase, Figma  [Playstore Link](#)
 - Developed a feature-rich mobile application exclusively for our college community, achieving **360+ registered users** and maintaining a **5-star rating** on user feedback.
 - Incorporated **7 core functionalities** including trip sharing, advanced filtering, and seamless search, enhancing the overall user experience.
 - Integrated a real-time user request system using Firebase, delivering **sub-1s** response times to ensure smooth coordination of trip join requests among **10+ concurrent users**.
- **RealmWeaver - Dynamic Game Environment** Sep. 2024 - Nov. 2024
C++, GEMINI API, Data Structures and Algorithms  [GitHub Link](#)
 - Engineered a dynamic game world with automated, AI-driven content generation, allowing the creation of **NPCs, quests, and locations in real-time**, ensuring a constantly evolving and personalized gameplay experience.
 - Optimized content generation by integrating **multiple round-robin API keys**, exponentially reducing creation time, speeding up the overall content creation from **5 mins** to **less than a 1 mins** for 3 keys.
 - Developed a centralized content management system that reduced the manual creation of NPCs, quests, and storylines by **100x**, enabling seamless and efficient world-building with minimal human input.
- **The Vindication - Text-Based Adventure Game** Apr. 2024 - May. 2024
C, JSON, ASCII Graphics  [GitHub Link](#)
 - Crafted an open-world adventure game featuring **27 quests** and **7 mini-games** using modular JSON-based data structures, achieving **10+ hours** of gameplay.
 - Programmed **120+** ASCII terminal graphics elements and integrated **15** in-game audio tracks to enhance user immersion, increasing average play session by **45%**.
 - Formulated save/load functionality via JSON parsing to support **unlimited** unique game states and **25+** customization options with **100%** data integrity.
- **Image Filtration Program - C-Based Image Processing** Mar. 2024
C, GCC, BMP File Format  [GitHub Link](#)
 - Programmed **6** image filters (Grayscale, Blur, Sharpen, Sobel Edge Detection, Reflect, Negative) for BMP file manipulation with **100%** format compatibility.
 - Devised a robust image I/O system for processing 24-bit BMP files up to **4K resolution**, achieving an average processing time of under **3 seconds** for standard images.
 - Enhanced application reliability by debugging and refining filter algorithms to manage **15+** edge cases, reducing processing failures by **96%**.

SKILLS

- **Programming Languages:** Go, C, C++, Java, Dart, Python, JavaScript
- **Frameworks & Libraries:** Flutter, Node.js, React.js, Express.js, Firebase, Cobra, MongoDB, Multer, Cloudinary
- **NLP & AI Concepts:** Vectorization, Embeddings, Semantic Search, AI-driven Querying, GPT Integration, Chatbot Development
- **Tools & Platforms:** Git, Docker, Postman, Trello, CI/CD (GitHub Actions), REST APIs
- **Soft Skills:** Critical Thinking, Teamwork, Problem Solving, Communication, Leadership, Time Management
- **Software Concepts:** System Design, Computer Networks basics, Cryptography basics, Risk Analysis
- **Other Skills:** Google OAuth 2.0, Cloud Services (AWS, Firebase Hosting), Responsive Design, Unit Testing, Debugging

COURSEWORK

- | | |
|---|------------------|
| • Mathematics for Computing | <i>Graded A</i> |
| • Foundations of Quantum Information | <i>Graded B</i> |
| • Probability, Statistics, and Stochastic Processes (PSSP) | <i>Graded A-</i> |
| • Mathematics-I (Calculus) | <i>Graded A</i> |
| • Mathematics-II (Linear Algebra) | <i>Graded A-</i> |
| • Introduction to Computer Science | <i>Graded A*</i> |
| • Data Structures and Algorithms | <i>Graded A</i> |
| • Software Engineering | |
| • Pattern Recognition and Machine Learning (PRML) | |

ACHIEVEMENTS

- Organized **Vandre**, a large-scale entrepreneurial event, achieving a **500% increase in revenue and profit**.
- Led the team to **Gold Medal** in **Bug Bounty '25**, an open-source competition, by resolving critical bugs projects.
- Secured **1st place** in **CADastra** at **Prometeo '25**, IIT Jodhpur's Tech Fest, for innovative CAD design solutions.
- Won **1st place** in **Pitch It** at **Initio '23**, E-Cell IIT J's startup competition, with a compelling business proposal.

POSITIONS OF RESPONSIBILITY

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|---|-------------------------|
| • Core Member , DevlUp Labs, Indian Institute of Technology, Jodhpur | <i>Mar 25 - Present</i> |
| • Core Member , Quant Club, Indian Institute of Technology, Jodhpur | <i>May 24 - Present</i> |
| • Associate , Product Club, Indian Institute of Technology, Jodhpur | <i>May 24 - Present</i> |
| • Senior Executive , E-cell, Indian Institute of Technology, Jodhpur | <i>Jun 24 - Present</i> |

EXTRACURRICULAR

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|--|------------------------|
| • Student Guide , Student Wellbeing Committee @ Indian Institute of Technology, Jodhpur | <i>Jun 24 - Apr 25</i> |
| • Assistant Head , Prometeo X Econclave (Tech Fest) @ Indian Institute of Technology, Jodhpur | |
| • Volunteer , Varshas (Sports Fest) @ Indian Institute of Technology, Jodhpur | |