Prince Kumar

+91-9973938636 | ep230051013@iiti.ac.in | linkedin.com/in/k07prince | GitHub pk42.me

EDUCATION

Indian Institute of Technology Indore 2023 – Present
B.Tech in Engineering Physics (Roll No.: 230051013) (Current CGPA: 6.74) Indore, India

EXPERIENCE

Indian Space Research Organisation (ISRO) Jan. 2025 – April 2025
Data Analytics and Management Intern Remote, India

- Benchmarked **3 major modeling pipelines** (Eureka!, PyratBay, PICASO) using JWST spectroscopy data; compared **performance, output quality, and runtime** on Ubuntu.
- Resolved **15+ pipeline issues** including dependency conflicts and convergence errors, and documented fixes to improve **reproducibility and setup time by 40%**.
- Delivered **internal presentations** and authored **4 technical reports** outlining workflows and findings.

Raizzify Feb. 2025 – May 2025
Software Development Intern Indore, India (Remote)

- Built and optimized **frontend components** for **financial and business management**; fixed bugs related to **Payments** (saving up to **70% losses**) and created **dashboards for financial tracking**.
- Managed **Jira** and collaborated with **QA teams** to streamline **issue tracking, testing, and deployment**.

PROJECTS

Video Conferencing with Live Emotion Detection: Expresso | Github June 2024 – Aug 2024

- Led a team to develop a **video calling app with live emotion detection** using **Next.js, Django, Node.js**. Developed and compared ML algorithms for emotion detection to **reduce processing time by 90%**.
- Engineered a **scalable SFU and signaling server** using **Node.js**, enabling seamless **real-time data transfer** supporting **20 concurrent video streams** with **no latency during peak hours**.
- Deployed on **AWS VPS with Docker**, supporting **1000+ users** on a **load-balanced setup** with **CI/CD pipelines**.

Internship and Placement Portal | Website , Github June 2024 – Aug 2024

- Developed a **secure, production-grade placement portal** using **Next.js, NestJS, TypeScript, PostgreSQL, Docker, and NGINX**, finally **reducing application time by 80 hours per semester**.
- Implemented robust **RBAC** with tailored access for **students, admins, and recruiters**, supporting over **5,000 users**.
- Replaced dependency on third-party platforms, saving the institute approximately **₹3,00,000 per placement season**.

SKILLS

Programming: Python, Javascript/Typescript, C++
Tools/Frameworks: NextJS, Django, DRF, Tailwind, Keras, Numpy, Pandas, Flask, Git, GitHub, WebSockets, WebRTC, Linux, Vitest
Database: MySQL, PostgreSQL, VectorDB
Cloud & Devops: Docker, AWS: EC2, Elastic Beanstalk, RDS, S3, ECR, Codecommit; NGINX, Load balancing, CI/CD Pipelines

POSITIONS OF RESPONSIBILITY

GDG, IIT Indore | Web Development Lead and Co-Head Nov. 2024 – Nov. 2025
Astronomy Club, IIT Indore | Data Analysis Head Nov. 2024 – Present
Gymkhana Web Team, IIT Indore | Member Aug. 2024 – Present

ACHIEVEMENTS

- **Open Source**: 5 merged PRs (JupyterLab, JupyterLab, Talawa Admin, Mess Website, Mess Website)
- **JEE Advanced 2023**: AIR 16637, Category(4157), Top 1%
- **IITI Summer of Code 2024**: Gold Medal (Team Lead)
- **Inter IIT Tech Meet 14.0**: 12th Rank (Overall 3rd) - Pathway (2025)
- **Smart India Hackathon 2024**: National Finalist (Team Lead)
- **Pentathon 2025**: National Finalist (Waitlisted) - Penetration Testing Competition
- **Leetcode**: Rank 4058 Biweekly Contest 160 (300+ questions solved)