

# Himanshu Kumar

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LeetCode   HackerRank

## SUMMARY

- Computer Science undergraduate specializing in full-stack development and machine learning. Experienced in building and deploying web applications and NLP pipelines using Python, Flask, React, and deep learning frameworks. Strong foundation in data structures, relational databases, and cloud-based deployment.




## EDUCATION

- **Indian Institute of Information Technology (IIIT), Kalyani** Expected May 2026  
*B.Tech in Computer Science and Engineering* CGPA: 7.55
- **Narayana Junior College** 2020 – 2022  
*Class XII (CBSE)* Percentage: 90.4%

## TECHNICAL SKILLS

- **Programming Languages:** Python, JavaScript, C++, C, Java (Basic)
- **Frontend:** React.js, HTML5, CSS3, Tailwind CSS, TypeScript
- **Backend & Databases:** Node.js (Basic), MySQL, MongoDB
- **Machine Learning:** TensorFlow, Keras, PyTorch, Scikit-learn, Pandas, NumPy, NLTK
- **Tools & DevOps:** Git, GitHub, Docker, AWS EC2/S3, Postman, VS Code
- **Platforms:** Netlify, Vercel, Google Colab, Jupyter Notebook

## PROJECTS

- **Sanskrit Sandhi & POS Tagger** Live Demo 
  - Engineered a sophisticated **BiLSTM-CRF** hybrid architecture to automate Sanskrit compound word splitting and Part-of-Speech tagging with 72% accuracy.
  - Implemented custom **tokenization logic** for the Devanagari script, handling complex phonetic transformations and morphological variations using PyTorch.
  - Developed a **rule-enhanced neural pipeline** that integrates traditional Sanskrit grammatical constraints with deep learning to solve ambiguity in sequence labeling.
  - Deployed the model as a scalable web service on **Hugging Face Spaces** using Gradio, enabling real-time linguistic analysis for researchers and students.
  - *Tech Stack: Python, PyTorch, Scikit-learn, NLTK, CRF, Gradio, NumPy*
- **Dashboard-NoteVault** 
  - Developed a full-stack productivity suite using **Django**, featuring integrated modules for multi-category note-taking, project lifecycle tracking, and goal management.
  - Engineered a relational database schema with optimized **Foreign Key** relationships to support secure, user-specific data isolation and persistence.
  - Implemented robust **User Authentication** and authorization workflows using Django's security framework and protected Class-Based Views.
  - Optimized front-end interactivity using **JavaScript** and responsive CSS, delivering a mobile-first dashboard experience with dynamic UI updates.
  - *Tech Stack: Django, Python, SQLite3, JavaScript, HTML5, CSS3, FontAwesome*
- **Library Management System** Live Demo 
  - Architected a production-ready management platform utilizing **Flask** and **MySQL**, supporting multi-user roles with secure **Role-Based Access Control (RBAC)**.
  - Designed a highly **normalized relational schema** to manage book inventories, fine calculations, and real-time transaction tracking for 500+ potential users.
  - Built automated backend logic for circulation workflows, including reservation queues, overdue notifications, and dynamic fine generation based on business rules.
  - Configured a robust CI/CD pipeline for deployment on **Railway** using **Gunicorn**, achieving high availability and efficient handling of concurrent requests.
  - *Tech Stack: Python, Flask, MySQL, Jinja2, Werkzeug, Gunicorn, Railway*

## ACHIEVEMENTS

- Solved 450+ algorithmic problems across LeetCode, HackerRank, GeeksforGeeks, and Coding Ninjas.
- Delivered multiple academic and personal projects deployed in production environments.
- Represented IIIT Kalyani in inter-IIIT cricket tournaments and led college-level cultural initiatives.

## CERTIFICATIONS

- **Data Analytics Virtual Program** — Deloitte May 2024
- **Data Visualisation: Empowering Business with Effective Insight** — Tata Group June 2024
- **Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate** — Oracle University Oct 2025