

KARAN SINGH

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EXPERIENCE

AI Intern | Digital Word of Mouth | June 2025 – Aug 2025

- Assisting in the development and refinement of AI social media post generator.
- Utilizing Python and Groq cloud to generate information by searching on web and posting to multiple social media accounts.
- Gaining hands-on experience in developing agentic AI and digital marketing.

Data Science Intern | Prodigy InfoTech | Jan 2025 – Feb 2025

- Completed **4 end-to-end data science projects**, including data preprocessing, model development, and deployment using Python libraries.
- Built and deployed machine learning models for predictive analytics, achieving a **15% improvement in model accuracy**.
- Utilized data visualization tools (Matplotlib, Seaborn) to create insightful dashboards and reports.

PROJECTS

Pocket Coach: Posture & Reps Analyzer | ([link](#)) | Nov 2025 - present

- Engineered a **real-time computer vision application** using **MediaPipe** and **OpenCV** to track full-body pose landmarks, accurately calculating joint angles to monitor user posture during exercises (e.g., Push-ups, Squats, Plank).
- Implemented a **state-machine logic** to count repetitions and analyze posture by monitoring user-calibrated angular thresholds (e.g., knee and elbow angles), providing instant visual feedback on form quality.
- Built the interactive, single-page application and dynamic UI using the **Streamlit** framework to visualize the video feed, display real-time metrics (Reps, FPS, Form Status), and manage user-defined calibration sliders.
- Goal to integrate AI that interact with user in real time.

Multimodal AI Text Summarizer | ([link](#)) | ([Live demo](#)) | Nov 2024

- Engineered a Streamlit AI Summarizer featuring dual Gemini/Groq API integration for high-speed, flexible summarization.
- Developed robust data pipelines to ingest content from URLs (web scraping), PDF, and DOCX files.
- Demonstrated proficiency in secure deployment by implementing Streamlit Secrets for API key management.

Finance Dashboard | ([link](#)) | Oct 2025

- Developed dynamic financial reporting using a Power BI slicer to enable **real-time month-over-month growth comparison**.
- Features interactive **yearly filtering** across all visualizations, providing rapid, detailed segmentation of historical financial performance.
- Implemented a **bookmark-based refresh function** to quickly reset all filters, ensuring optimal user experience and data initialization.

Secure User Authentication System | Django, Python, SQL | Oct 2025

- Developed a robust user authentication system using Django (Python), enabling secure user registration, login, and logout functionalities.
- Implemented comprehensive input validation for user registration, including checks for existing credentials, password complexity, and username constraints.
- Engineered an email-based account activation flow, integrating token generation for enhanced user verification and security.
- Configured an administrative interface for user management, showcasing backend control and data oversight.

SKILLS

- **Programming Languages:** Python, SQL, C, JavaScript
- **Soft Skills:** Team Collaboration, Problem-Solving, Communication, Time Management, Adaptability
- **Data Science Libraries:** NumPy, Pandas, Matplotlib, Scikit-learn, Streamlit, OpenCV, Mediapipe
- **Tools & Platforms:** Git, Jupyter Notebook, AWS, PowerBI, Wordpress
- **Databases:** MongoDB, MySQL, SQLite

EDUCATION

B.Tech in Computer Science Engineering spec. AI & ML (pursuing)

Haridwar University, India | Aug 2023 – Aug 2027 | **CGPA: 8.0**

CERTIFICATIONS

** Javascript with ReactJS **- IIT Varanasi ([link](#))

-Learned JavaScript, React

** Machine Learning with Python **- IBM ([link](#))

-Focused on machine learning algorithms, data processing, model evaluation, and deployment.