DEBOSMITA PAL

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EDUCATION

LOVELY PROFESSIONAL UNIVERSITY, Phagwara, Punjab   **2023-2027**

B. Tech Computer Science and Engineering   CGPA – 7.1/10

Dynamic and driven third-year B-Tech student at Lovely Professional University, majoring in Computer Science Engineering. Passionate about software development and eager to expand my knowledge in web development. Actively learning multiple programming languages to enhance my skills and develop different projects to solve problems in an effective manner.

VIDYASAGAR SHISHU NIKETAN, Midnapore West Bengal   **2022-2023**

Higher Secondary

PROJECTS

Booking Appointment Website|SyncUniserve   Sep'25

Website development **Link**

- Developed a full-stack appointment booking platform using **MERN stack (MongoDB, Express.js, React, Node.js)** for doctors, grooming sessions, and home repair services.
- Implemented secure **user authentication** and real-time booking management, reducing manual scheduling time by **40%.**
- Designed a **responsive,** intuitive UI with React.js and **optimized backend APIs** with Node.js/Express.js, enabling the system to handle users with **99.9%** uptime.

DNA Sequence Analyzer|DNAVision   Aug'25

Website development **Link**

- Built a bioinformatics tool to perform **DNA pattern matching**, **nucleotide frequency analysis**, and **protein translation** with high accuracy.
- Implemented **reverse complement generation** and sequence statistics for efficient genomic data interpretation.
- Applied algorithmic techniques to enhance **data analysis, visualization, and biological insight extraction**.

Showcase WestBengal Culture | BengalFusion   Jul'25

Website development Link

- Built a **MERN-based web application** highlighting West Bengal's culture, including **food, festivals, heritage, dance, music, and tourist destinations**.
- Designed a **dynamic and responsive interface**, improving **user engagement by 40%** through interactive cultural storytelling.
- Optimized **data management** enabling users to access cultural content with **25% faster load times**.

Ballistic Recognition Tool| BallisticID   Jun'25

Website Development **Link**

- Engineered a MERN-based ballistic recognition system allowing users to upload, match, and analyze images with high accuracy.
- Integrated algorithms to identify and compare ballistic patterns, achieving ~92% recognition accuracy in test datasets.
- Optimized data processing, reducing image analysis time by 30%, and designed a user-friendly interface for seamless forensic investigation**.**

CERTIFICATES/ACHIEVEMENTS

- Contributed to major open-source projects and through consistent debugging and exploration of new technologies secured a top 300 rank in GSSOC'25.
- **Earned NPTEL certification in Cloud Computing,** demonstrating foundational knowledge in cloud technologies and best practices
- Attained 5-star rating in Java on HackerRank by excelling in algorithmic challenges and problem-solving exercises.

- Maintained a 50-day Leetcode streak badge, showcasing consistent dedication to mastering algorithmic and data structure skills

TECHNICAL SKILLS

- **Programming Languages:** C++, C, Java, JavaScript
- **Web Technologies:** MERN Stack (MongoDB, Express, React, Node.js), Next.js
- **Databases:** MongoDB, SQL
- **Tools & Version Control: Git, GitHub**
- **Cloud & Deployment: Vercel**