# Tushar Mohanpuria

Roll No. 21010146

B.Tech. in Computer Science Engineering
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GitHub Profile
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# **EDUCATION**

Indian Institute of Information Technology, Manipur(06/2025)B. Tech in Computer Science EngineeringCGPA: 9.21Nalanda Academy Anantpura Kota (RAJ)(06/2021)Central Board of Secondary Education (C.B.S.E.), Class XIIPercentage: 86.8%Atomic Energy Central School No 4, Rawatbhata (RAJ)(06/2019)Central Board of Secondary Education (C.B.S.E.), Class XPercentage: 92.2%

### EXPERIENCE

### Centre for Development of Advanced Computing (C-DAC)

(05/2024 - 06/2024)

Virtual Intern - Ethical Hacking and Penetration Testing

Noida, India

 Completed C-DAC Training program. Proficient in Metasploit, Wireshark, and Burp Suite. Conducted vulnerability assessments and penetration tests. Authored a research report on "Unsealing the Backdoor: File Upload Vulnerabilities.

## PERSONAL PROJECTS

## Library Management System (Project Link):

A library management system (a full-stack project using MERN) accomplished a 50% increase in efficiency.

- $\circ$  Streamlined book transactions, automated library tasks, and introduced self-checkout, achieving a 40% time reduction.
- Introduced automatic QR code generation for book copies, reducing the process time by 50%.
- $\circ$  Added automatic fine collection through UPI deep link QR codes and a notification system for due dates under 5 days.
- $\circ$  Developed a system for the automatic generation of E-IDs & enabled book data extraction using ISBN with 80% accuracy.

#### Audio Equalizer Application (Project Link):

An audio equalizer with full-length file support and reduces time by 30% based on audio for increased user efficiency.

- $\circ \ \text{Implemented controls for fine-tuning gains across 5 to 6 frequency bands, improving audio equalization precision.}$
- $\circ$  Established audio playback and visualization features, resulting in a 25% increase in user comprehension.
- o Achieved an 80% accuracy in manipulating audio frequencies, showcasing proficiency in frequency modulation.

# Multilingual Dictionary (Project Link):

 $A\ web\ application\ offering\ users\ word\ translations\ and\ definitions\ in\ 3\text{-}4\ languages,\ enhancing\ multilingual\ accessibility.$ 

- $\circ$  Enhanced user experience with a responsive interface, cutting word search time by 25% and enhancing navigation.
- o Offered diverse interpretations in 3-4 languages, including synonyms, antonyms, and examples for a rich user experience.
- Gained 95% accuracy in displaying relevant images for user queries, highlighting strong search capabilities.

### TECHNICAL SKILLS AND INTERESTS

Languages: C++, HTML+CSS, JavaScript, Python

Libraries: React.js, Python (matplotlib, pydub, numpy, etc.)

Technologies: MERN Stack, Web, AI & ML Developer Tools: Node.js, VS Code, Git, GitHub

Frameworks: Bootstrap, Express.js, Next.js, and Tkinter

Cloud/ Databases: document-oriented database (MongoDB), relational database (MySQL)

# **ACHIEVEMENTS**

E-yantra (Semi Finals): Participation in the semi-finals of the E-yantra robotics competition. (10/2022 - 07/2023)

NTSE (Stage-1 Qualified): Conducted by NCERT (Only 4000 Students Qualified) (11/2020)

STSE (Top 90): Secured a position in the top 90 in the State Talent Search Examination. (12/2020)