



Tara Chand
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B.Tech. - Civil Engineering
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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.	Indian Institute of Technology, Guwahati	8.55 (Current)	2023-Present
Senior Secondary	Central Board of Secondary Education	94.4%	2022
Secondary	Board of School Education, Haryana	92.8%	2020

EXPERIENCE

- **Outsyde - Adventure Booking Platform** May 2026 – Jul 2026
Full-Stack Developer Intern Remote
 - Designed a **51-table PostgreSQL database** with **Prisma**, connecting treks, trips, bookings, payments, referrals, and payouts. Used relational constraints, price and address snapshots, soft deletes, and **append-only audit logs** to maintain data accuracy.
 - Built a **9-section admin console** with role-based permissions across **64+ APIs**, covering provider KYC, user management, refunds, disputes, commissions, and payouts. Fixed a payment race condition using **row-level locking** to prevent duplicate refunds.
 - Developed the booking platform with consumer and provider portals, **retry-safe payments** with duplicate-charge protection, and a loyalty wallet system. Added discovery features such as fuzzy search, trending rankings, and sponsored listings.

PROJECTS

- **Smart Traffic Command Center** | *Flipkart Gridlock 2.0 Hackathon* May 2026 | Website | GitHub
 - Engineered **64 key features** from **8,173** traffic incidents and trained **gradient-boosting** models, achieving **0.989 ROC-AUC**.
 - Formulated a data-driven severity score using **PCA-weighted blending** across 7 indicators, generating actionable recommendations.
 - Developed a **Streamlit** dashboard with a map predictor, model thresholds, and prediction history using crash-safe writes efficiently.
 - Established a leakage-safe pipeline using clusters, priority encodings, and training-fitted scalers, ensuring reliable model evaluation.
- **Back2Color - Image Colorization** | *Personal Project* July 2025 | Website | GitHub
 - Developed an **image colorization** system to convert black-and-white images into color using **deep learning** and **CIE Lab** space.
 - Trained **convolutional encoder-decoder** on **100+ images** to predict **a,b chrominance channels** while retaining image brightness.
 - Integrated a pretrained **Zhang et al.** colorizer using **ONNX** and **OpenCV DNN** for improved colorization of unseen images.
 - Built and deployed a **Streamlit** app with **256×256** inference, image upload, sample selection, comparison, and JPEG download.
- **Verity - Business Intelligence System** | *Accenture Innovation Challenge* Mar 2026 - Apr 2026 | GitHub
 - Developed a business intelligence system to detect important metric changes using **STL and Isolation Forest** for anomaly detection.
 - Implemented **Retrieval-Augmented Generation** to retrieve key business documents based on the metric, region, and user access.
 - Integrated a **Large Language Model** to explain changes from verified data, with a citation guard preventing unsupported numbers.
 - Designed a decision system with **forecasting** and data analysis across 4 scenarios for key business decisions, with approval checks.
- **Hangman-Solving AI: BiLSTM** | *Group Project* Aug 2026 | Website | GitHub
 - Developed an automated Hangman agent using two **Bidirectional LSTM** models trained on **227K+ words** to predict next letters.
 - Created a leak-free **97.5%** and **2.5% train-test split** with fixed seeding and overlap checks for performance on unseen words.
 - Combined model predictions with **information gain and letter frequency** to select effective guesses from partially revealed words.
 - Achieved a **56.2% win rate** on 5,000 held-out words under a strict 6-try limit, averaging 4.28 incorrect guesses per game overall.

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Python, JavaScript
- **Web and Backend:** React, Next.js, Tailwind CSS, Node.js, Express, REST APIs, WebSockets
- **Databases:** MySQL, PostgreSQL, MongoDB, Firebase*
- **DS and ML:** NumPy, Pandas, Matplotlib, Seaborn, scikit-learn, TensorFlow, Keras, LangChain*
- **CS Fundamentals:** OOPs, DBMS, Operating Systems, Computer Networks
- **Tools and Technologies:** Git, GitHub, Postman*, MATLAB*, LaTeX* * Elementary proficiency

KEY COURSES TAKEN

- **Mathematics:** (MA 102) Linear Algebra and Multivariable Calculus, (MA 201) Complex Analysis, (MA 101) Real Analysis
- **Computer Science:** (CS 101) Introduction to Computing, (CS 110) Computing Laboratory

ACHIEVEMENTS

- **Silver Flag Winner**, Selected in the **Top 75** among **30K+** registrations for the Cisco Code-a-thon finals, Bangalore 2026
- **Top 1.9%**, MyCareernet HackVega 2.0, national coding challenge among **47K+** participants 2026
- **Top 4.4%**, Flipkart Gridlock 2.0, ML and Data Science hackathon, among **35K+** participating teams 2026
- **Semifinalist**, Flipkart GRiD 8.0, Software Development Track, among **150K+** participants nationwide 2026
- **Semifinalist**, Economic Times AI Hackathon 2.0, national AI innovation challenge, among **60K+** participants 2026
- **Competitive Programming**, Solved **1200+** DSA problems across Codeforces, CodeChef, LeetCode & AtCoder Card

EXTRA-CURRICULAR ACTIVITIES

- **Student Mentor**, Mentored **750+** students preparing for JEE at **Physics Wallah** 2024
- **Participant**, Meta Hacker Cup, Meta's global competitive programming contest 2024
- **NSS Volunteer**, Participated in community service and social outreach activities through **NSS, IIT Guwahati** 2024
- **Core Team, Public Relations and Branding**, Alcheringa'26 (Cultural Fest), IIT Guwahati 2026