

RADHEY KALRA

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TECHNICAL SKILLS

Languages: Python, C, C++, TypeScript, Bash, SQL

Frameworks: React, React Native, Svelte, Electron

EDUCATION

Model Institute of Engineering and Technology (Autonomous)

B.E. in Computer Science

Jammu, India

Oct 2023 – Jun 2027

PROJECTS

UNet Audio Filter | *Python, PyTorch, NumPy, Librosa* | [Link](#) July 2025

- Implemented a deep learning-based audio filtering system using the U-Net architecture for denoising and source separation tasks.
- Trained and evaluated the model in PyTorch with custom loss functions to improve filtering performance and clarity.
- Built a modular pipeline enabling reproducible experiments and easy integration into other audio processing workflows.

Unidash | *Next.js, Firebase (Firestore, Auth), Tailwind CSS* | [Link](#) June 2025

- Built a community leaderboard system tracking performance across hackathons, events, quizzes, and daily coding challenges.
- Developed student profiles with stats, activity history, and progress insights.
- Integrated an event calendar to highlight upcoming community activities and competitions.
- Implemented a 1v1 coding battle system with ELO-based ranking and real-time matchmaking using Firebase.

Hotel Booking Website | *MySQL, Svelte, Node.js, Express.js* | [Link](#) May 2025

- Designed and developed a full-stack hotel booking platform with secure room reservations, user authentication, and payment handling.
- Built RESTful APIs in Express.js to handle bookings, availability search, and customer management.
- Implemented a responsive frontend in Svelte to deliver a seamless booking experience across devices.

Doom in Terminal | *C++, ncurses, CMake* | [Link](#) Mar 2025

- Developed a terminal-based first-person shooter game inspired by classic DOOM
- Implemented core game mechanics including player movement, rotation, and basic map rendering within a terminal environment.
- Built the project using CMake, facilitating cross-platform compatibility and streamlined build processes.

EXTRA-CURRICULARS, LEADERSHIP, & INITIATIVES

Team Leader | Internal Hackathon & Smart India Hackathon 2024 (SIH 2024) | MIET, Jammu Sep 2024 – Dec 2024

- Led a multidisciplinary team during the college's internal hackathon, successfully qualifying for SIH 2024.
- Facilitated collaborative problem-solving and innovative thinking, resulting in a functional prototype addressing real-world challenges.

Team Leader | Innovation, Design, and Entrepreneurship (IDE) Bootcamp | IIT Jammu Feb 2025

- Participated in a 5-day immersive bootcamp organized by IIT Jammu in collaboration with the Wadhvani Foundation, AICTE, and MoE's Innovation Cell.
- Led a team in developing a "Sports Match Finder" app, applying principles of design thinking and the Lean Canvas model to address market needs.
- Engaged in hands-on activities and real-world case studies, gaining insights into business modeling, product design, and entrepreneurial strategies.