RADHIKA KHATTER

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EDUCATION

Dronacharya College of Engineering

BTech in Computer Science and Engineering

Expected Graduation: [2027]

St. Michael's Sr. Sec. School 12th

Grade | Percentage: 96% Graduated: 2023 (CBSE)

St. Michael's Sr. Sec. School 10th

Grade | Percentage: 91% Graduated: 2021 (CBSE)

EXPERIENCE AND RESEARCH

Research Paper Presentation and Publication

Title: "Artificial Intelligence-Based Smart Handover Techniques to Provide QoS in 6G Networks"

- Publication: Published in the International Journal of Advance Computational Engineering and Networking (IJACEN), July 2024.
- Presentation: Presented at the International Conference on Science, Engineering and Technology (ICSET), Bali, Indonesia, on July 13-14, 2024.
- Research focused on leveraging AI to optimize handover processes in 6G networks, improving Quality of Service (QoS).

Summer School Student [June-2024]

International Centre for Theoretical Science (ICTS), Bangalore

- Strengthened skills in R programming and applied mathematical concepts (linear algebra, calculus, probability, and statistics) to real-world data analysis problems.
- Engaged in workshops and collaborative sessions, enhancing critical thinking in mathematical contexts.

Hackathon Participant

Vihaan 007, Delhi Technological University (DTU)

- Managed the frontend development for a construction monitoring project during the hackathon.
- Collaborated with a team to brainstorm and implement a solution for real-world construction challenges.
- Gained hands-on experience in frontend technologies and team collaboration under time constraints.

DevOlympus Hackathon - 1st Runner Up | Dronacharya College of Engineering Hackathon

Project: MorphoMinds (Assistive EdTech Platform for Dyslexic Learners)

Mar 2025

- Built *MorphoMinds*, a web app to support dyslexic users and early learners in reading and writing using real-time feedback and personalized learning modules.
- Led frontend-backend integration using React, Node.js, Express, and MongoDB, ensuring smooth user interaction and data flow.

PROJECTS

BookEase

Stack: Node.js, Express, React, MongoDB

- Developed a secure ticket booking system with **JWT authentication** for user sign-up and login.
- Implemented a seamless booking process, allowing users to browse shows and book tickets.
- Designed a user-friendly **React frontend** for an intuitive browsing and booking experience.
- Utilized MongoDB for storing user and booking data, ensuring scalability and data integrity.

Github link: BookEase

MorphoMinds

Stack: Node.js, Express, React, MongoDB, Python

- Developed MorphoMinds, an assistive learning web app for dyslexic users and early learners focused on improving reading and writing skills.
- Implemented real-time handwriting feedback using canvas stroke validation (green/red lines) and mirror letter detection logic.
- Integrated speech-to-text functionality for reading assessment, providing instant feedback on spoken words.
- **Designed** a clean, accessible UI with OpenDyslexic font support and dark mode toggle for enhanced user experience.
- Enabled structured learning with subject-wise progress tracking and level-based modules for English, Hindi, and Math.

Github link: MorphoMinds

NewsApp

Stack: React, External News API

- Built a news aggregation app using React that fetches and displays the latest news by integrating with an external news API.
- Designed a user-friendly interface for browsing and reading current news updates, showcasing skills in API integration and React component design.

Github Link: NewsApp

Typing Speed Game

Stack: Python, Tkinter

- Created a basic typing speed game using Python and Tkinter to help users practice and improve their typing skills.
- Designed a straightforward interface that displays typing prompts and measures speed and accuracy, focusing on user engagement and simplicity.

Github Link: Typing-speed-game

QuickSign

Stack: HTML, CSS, JavaScript

- Developed a web-based application that allows users to draw their signature on a digital canvas.
- Implemented functionality to save, download, and preview the drawn signature in real-time.
- Ensured a smooth user experience with an interactive UI using HTML5 Canvas API and responsive design techniques.
- Optimized performance for seamless drawing and downloading of high-quality signature images.

Github Link: QuickSign

Youtube-video-analysis

Stack: Python, Pandas, Matplotlib, Seaborn, TextBlob

- Developed a data analysis tool to extract insights from YouTube video data, focusing on views, engagement, sentiment, and trends.
- Implemented sentiment analysis using TextBlob, generated word clouds for common keywords, and visualized correlations using Seaborn and Matplotlib.
- Identified view patterns between verified and unverified channels, and explored relationships among views, duration, and publishing metrics.

Github Link: YouTube-Video-Data-Analyzer

SKILLS

- Programming Languages: C, Python, C++, R
- Web Technologies: HTML, CSS, JavaScript, React, Node.js, Express
- Frameworks and Libraries: JWT (JSON Web Token), bcrypt, Tkinter (Python GUI), Pandas, Numpy, HTML5 Canvas API
- Developer Tools: Git Data Management: SQL, MongoDB, Firestore
- Other Tools: Thunder Client

HONORS AND AWARDS

Reliance Undergraduate Scholarship

- Awarded as a Reliance Undergraduate Scholar, recognizing exceptional academic performance and potential.
- Selected among the top 5,000 candidates from over 50,000+ applicants nationwide.

EXTRACURRICULAR ACTIVITIES

School Prime Minister:

Led the student council, organized school events, and represented student interessts to the administration, demonstrating

leadership and organizational skills.