

EDUCATION

•NIT Kurukshetra 2023-2026

MCA CGPA: 9.27

•Panjab Univeristy 2019-2022

BSc. Physics Hons.

EXPERIENCE

•BioFieldPower (iHub - AWaDH) @ IIT Ropar

 $1st\ October\ 2024\hbox{--}\ Present$

mote Intern

- Spent three weeks of my winter vacation working from the iHub AWaDH office at IIT Ropar.
- Overseeing and assigning tasks to a team of interns, ensuring efficient development workflows and task prioritization.
- Contributing to an innovative biomass management application built with Firebase Auth, MongoDB, Express,
 and Next.js, streamlining interactions and creating value for all stakeholders.
- Reviewing code submissions and identifying bugs to maintain quality standards, improve code readability, and ensure functionality.
- Actively involved in hands-on development, implementing key features and optimizing system performance across the full stack.

Personal Projects

•Virtual Lab Platform January 2024 - Present

Remote

- Structured the backend and integrated Firebase for authentication and data handling across both frontend and backend.
- Implemented secure authentication flows with token-based access, role-based authorization, and email verification using Nodemailer.
- Built scalable backend modules for user roles, assignments, classrooms, and tests, including schema design and controller logic.
- Developed and enforced middleware for route protection, user role recognition, and access control.
- Designed dynamic routing and conditional rendering in the frontend to support role-specific dashboards and workflows.
- Engineered a complete Tests Module with real-time features: full-screen enforcement, tab switch detection, and timer-based control.

•Insaaf December 2023 – October 2024

Remote

- Developed a full-featured social media application tailored for law students, legal professionals, and civilians, facilitating seamless legal networking and service discovery.
- Implemented role-based access and conditional rendering for three user types—students, lawyers, and civilians—with distinct interfaces and interactions.
- Designed a robust Firebase-backed architecture enabling secure, scalable user data, real-time chat, post feeds, and relationship management (followers/following).
- Enabled:
 - * Students to explore internships, access case studies, follow lawyers, and initiate chats upon approval.
 - * Lawyers to browse and accept cases, post internships, share legal insights, and network with peers.
 - * Civilians to post legal cases, follow lawyers, and engage in case-related conversations.
- Integrated authentication via Google, email, and username/password, ensuring flexible and secure access for all users.

Link to Google Drive

Remote

- Conducted an in-depth analysis of student mental health data to explore interrelations between academic and lifestyle variables (e.g., CGPA, stress, sleep, physical activity, depression, anxiety).
- Encoded all categorical variables numerically based on type (ordinal/nominal) to enable comprehensive statistical analysis.
- Calculated pairwise correlations and performed hypothesis testing (Chi-square, ANOVA, Z-test, etc.) to evaluate statistical significance across variable pairs.
- Constructed a significance graph based on p-values, identifying two clear clusters: academic-related and lifestyle-related factors affecting mental health scores.
- Generated extensive visualizations (heatmaps, scatter plots, boxplots, count plots) to interpret relationships and trends effectively.
- Extracted key insights on how academic load and personal habits influence student mental well-being, providing potential recommendations for intervention.

Voice Assistant-Leo

July 2024 - September 2024

Remote

- Built a voice assistant in **Flutter** featuring smooth animations that converts voice into text prompts
- Utilized the Gemini API to provide appropriate responses while remembering previous messages to offer tailored interactions.
- Integrated plugins like text-to-speech for a seamless user experience. Future features include voice-to-image generation.

Link to Google Drive

•MiniGames-Arcade

January 2024 - April 2024

Remote

 Developed an arcade game emulator featuring five mini-games, utilizing core Java, swing, and AWT packages, with user-friendly menu interfaces.

Link to Google Drive

TECHNICAL SKILLS

Languages: Java, Dart, C, Python, JavaScript

Frameworks and Libraries: NEXT.js, Flutter, Express, React, BootStrap, Node.js

Databases:Firebase, MongoDB

Soft Skills: Team Management, Communication, Adaptability, Problem Solving skills, Leadership

Positions of Responsibility

- •Placement Coordinator (MCA)
- •Secretary Mexperts (Technical Society of MCA and MBA)
- •Team Lead BioFieldPower (iHub-AWaDH) @ IIT Ropar
- •Anchor Theme Launch TechSpardha