Sanchit Kalra

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Summary

I am a highly motivated and detail-oriented individual with a passion for programming and a track record of success in the field. With experience in both front-end and back-end development, I am capable of taking on any challenge and delivering results.

Education

Electrical and Electronics Engineering BITS Pilani, India November 2020 - August 2025

• Relevant coursework: Discrete Math, Neural Networks and Fuzzy Logic, Optimisation, Operations Research.

Work Experience

Technical Lead Student Welfare Division, BITS Pilani Jul 2022 - Present

- Developed and maintained web applications using React and Node.js.
- Designed and implemented RESTful APIs using Express and MySQL.
- Collaborated with campus administration to understand key user needs and come up with solutions to solve challenges and to ensure timely delivery of features.
- Led the ideation and implementation of key features such as a hostel allotment system and QR code entry system using JWT tokens.
- Implemented hourly SQL backups to Google Drive using Cron jobs.

Research Intern CSIR-CSIO

May 2022 - July 2022

- Worked to develop a desktop application for data analysis using image inputs and write associated documentation at the Food Vision Lab in the Centre of Excellence for Intelligent Sensors and Systems (ISenS).
- Built the front-end using Electron, React, Node.js, and Tailwind CSS. Built the back-end using a combination of Python and TypeScript using frameworks Flask and Express respectively. Extensively used Electron IPC features and embedded a custom application for a complete user experience.

- Contributed to design discussions and provided feedback on user experience.
- Assisted co-workers with testing and debugging their JavaScript code and optimised a MongoDB database.

Senior Technical Team Member E-Cell, BITS Pilani Hyderabad Campus Oct 2021 - Jun 2022

- Led a team of 7 people for the development of the Launchpad portal.
- Led the development of the front-end written in NextJS and implemented email/password JWT based authentication using next-auth.
- Contributed to design discussions and provided feedback on user experience.
- Developed a scalable backend using Node.js, Express, TypeScript, MongoDB and wrote clean organised code. Implemented JWT authentication.
- Implemented payments and ticketing using Razorpay.
- Deployed the front-end to Vercel and backend to Render and maximised uptime.

Skills

- Programming languages: JavaScript, TypeScript, Python, C++
- Web development: HTML, CSS, React, Node.js, Express, MongoDB, TailwindCSS, NextJS