

SAHEJ ANAND SINGH

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EDUCATION

B.Tech. Data Science, NIIT University
CGPA 8.89

2020-2024 (On Going)

SKILLS

Programming

JavaScript, Python, Dart, C++, Java, SQL, R

Frameworks / Libraries

Flutter, React, Next.js 13, Node.js, Socket.IO, LangChain, Tailwind CSS, Django

Tools

Git, GitHub, Google Cloud, Linux, Firebase, Docker, Markdown, LaTeX

WORK EXPERIENCE

Full Stack Developer

Jan 2023 - Present

Placement Portal Team Lead at NIIT University

- Developing a full stack React, Node.js web app while coordinating with the University's faculty and developers
- Integrated new project with University's legacy ERP system and MS-SQL Server database
- Engineered features like OAuth2.0, role-based permissions, error & request logging, soft-deletion, and JWT auth
- Worked with libraries like Redux, React Router, Tailwind CSS, and tools like Docker, and GitHub Projects

PROJECTS

Fashion Recommendation AI Chat Assistant ([Read More](#))

2023

Google Cloud Platform (GCP), OpenAI, LangChain, React, Tailwind CSS

- Devised a cutting-edge fashion generative AI assistant in a hackathon with seamless integration of a current trends calculator, a personalized recommendation engine, and an OpenAI Platform powered chat interface
- Leveraged GCP's Vision AI for object identification and extraction of fashion trends from Instagram posts
- Orchestrated multiple LLMs interacting with each other via LangChain to build a chat based shopping experience

Juno: A Personal Time Tracker ([Live Link](#))

2023

Flutter, Socket.IO, Node.js, Express, SQLite, Sequelize ORM

- Conceptualized, architected, and crafted a full-stack mobile & web hybrid app with an intuitive interface, empowering users to meticulously track every minute of their time
- Achieved near real-time performance by migrating from traditional HTTP calls to a Socket.IO architecture
- Engineered robust features like JWT security, optimistic updates, and seamless multi-device synchronization

Personal Website, Portfolio, and Blog ([Live Link: sahej.io](#))

2022 - Present

Next.js 13, React, SQLite, Sequelize ORM, Tailwind CSS

- Developed and maintaining a full-stack website which includes a markdown based blogging engine
- Hosting on a cloud VM running Ubuntu, nginx, Let's Encrypt certbot for HTTPS, and a process manager (pm2)
- Cut monthly hosting costs by 20% by writing a script to backup logs and the database over SSH

Snow: A Coding Contests Reminders App ([GitHub Link](#))

2022

Dart, Flutter, Bloc, Material 3

- Built a mobile app, with **100+ downloads** on GitHub, to view upcoming coding contests from 10+ platforms
- Adhered to design patterns such as dependency injection, observables, and SRP
- Developed features like dark/light theme, customizable theme color, notifications, and local storage caching

C++, SDL2, Make

- Built a cross-platform emulator for the mid-1970s CHIP8 system from scratch in C++
- Emulated CHIP8 CPUs instruction set based on opcodes in executable files compiled for CHIP8
- Implemented a custom wrapper graphics library (GL) on top of SDL2, and wrote input and display drivers to interface the host machine (via the GL) with the emulated CHIP8 instance

ROLES & RESPONSIBILITY

- **Programming club coordinator** in University, organized 10+ events and delivered 3 workshops under tenure
- **Software team lead at TEDxNIITUniversity**, where I trained a team of 8 freshmen in basic web development, and then led them to deliver the website a month before schedule
- **Served in prestigious councils** like President's Student Advisory Board, & Student Affairs Committee
- **Teaching assistant (TA)** for the project based learning program of the University