Akash Singh

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Education

- **Dayananda Sagar College Of Engineering** — Bengaluru, India
  Bachelor of Engineering-Computer Science And Engineering; — *2022 - 2026*
- **Delhi Public School** — Siliguri, India
  12th Standard; CGPA: 9.6 — *2020-2022*

Technical Skills

Languages: Python, JavaScript, TypeScript

Frameworks: Flask,NodeJS,ExpressJS,React,NextJs,BootStrap5,TailWind

Databases And Tools: MongoDB,MySQL,SqlliteGit,Github

Projects

- **Motion Amplification Video (MAV)** |***MERN,Tailwind*** :
  - Developed a pioneering **cloud-based solution** for Motion Amplification Video (MAV) **(SIH'23 PS:1415)**, revolutionizing vibration analysis by enabling accessibility from anywhere via processing video clips and extracting motion features frame by frame, it amplifies and replays these motions, unveiling micro-scale defects.
  - Implemented a cloud-based **dashboard** for users to upload video clips and view processed results, enhancing accessibility from any location and significantly reduced costs compared to traditional methods.
  - Contributed to the development of the **user interface (UI)** to provide essential data outputs such as **time waveforms** and **FFT spectra** for in-depth vibration analysis. GitHub
- **ClassSnap** |***Selenium Web Driver,MERN,Python***:
  - Developed an innovative web application, **ClassSnap**, that automates note generation for online classes thus enhancing learning and improving student retention and attentiveness.
  - **Automates** note-taking using automated text extraction via **OCR Engine** from lectures' video and audio content and then summarizing and preparing PDF Notes via **Google's Pegasus Model**.
  - Lead a team of 4 people, organizing regular team meetings and collaborating on Github while contributing on the **Selenium Web Driver** and the **User Dashboard** for easy access of generated notes. GitHub
- **SleepSense** |***Python,Flask,Tensorflow***:
  - Created **SleepSense**, a vigilant guardian against driver fatigue leveraging machine learning combined with image processing techniques to detect driver drowsiness and provide real-time alerts.
  - **B**uild a **User Interface** using Flask for users to access our ML model from anywhere and provide real time protection and monitoring.
  - Lead a team of 4 people and prepared prototype of project during **Hackman V.4** and placed **Top 10** collaborating on Github and improvising upon feedback received from mentors. GitHub
- **AI Image Generator**|***DALL-E API,MERN,Tailwind***:
  - Designed and developed a responsive **AI Image Generator** website, leveraging the **DALL-E API**, to generate images based on user prompts and view images generated by other users.
  - **Empowers** users to creatively express themselves through AI-generated images, via API calls to **DALL-E API** and rendering response on the frontend and storing the images on the **Cloudinary** database.
  - Utilizes MongoDB and cloudinary along with Node.js in the backend and React in the frontend. GitHub
- **Gen-Z Diaries** |***Python,Flask,Sqllite,BootStrap***:
  - Crafted a fully responsive **Blog Website** catering to Generation Z, enabling users to compose, comment on, and delete blog posts via **REST API**.
  - Enhances digital self-expression and engagement among Gen-Z users, facilitated by seamless frontend-backend interactivity. GitHub

Achievements

- Placed Top 10 Among 48 other teams in Hackmanv6 -July 2023
- First Place in Web Wizards Web Development Contest - February, 2023
- First Place in Extempore Competition in InBlooms organized by Christ University - April,2023

Volunteer Experience

- **Point Blank** — Bengaluru, India
  Member of an elite multidisciplinary team of programmers from DSCE. — *Jan 2023-Present*
- **LITSOC, DSCE** — Bengaluru, India
  Member of the Literary Society of Dayananda Sagar College Of Engineering. — *Jan 2023-Present*