H Aditya Kumar

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Education

Indian Institute of Technology, Bhubaneswar

B. Tech And M. Tech (Dual Degree) Mechanical Engineering

Modern Vidya Niketan, Faridaabad

Senior School Certificate Examination, CBSE

Projects

Chess Engines - MLO

Live link

GPA: 8.22

Nov. 2021 - present

April 2018 - March 2020

Percentage: 85%

- Engineered a sophisticated chess platform, Chess Engines, offering three distinct play modes: Random AI, Stockfish engine, and an ML Model trained on 60,000 chess matches for optimal move prediction.
- Developed robust Flask APIs to power the chess engines, ensuring high performance and seamless integration.
- Architected the frontend with Next.js, enhancing user engagement through responsive design and intuitive interface, compatible with both mobile and desktop devices.
- Streamlined deployment processes by Dockerizing the backend and leveraging Azure for scalable and reliable service hosting; deployed the frontend on Vercel for efficient content delivery.
- Achieved a user-friendly experience with a responsive UI, significantly improving accessibility and interaction on multiple devices.

PassOP - Password Manager

Live link

- Developed a responsive password manager website, PassOP, using React and Vite framework, ensuring compatibility across mobile and PC platforms.
- Implemented secure local storage and MongoDB database for password management, including functions for adding, editing, and deleting passwords.
- Designed an intuitive user interface with high-quality designs and icons using Tailwind CSS, improving user experience and visual appeal.

YTScoop - YouTube Video Downloader 🗘

 $Live\ link$

- Developed YTScoop, a React-based website for downloading YouTube videos in MP4 and MP3 formats, featuring a
 futuristic design.
- Implemented a backend with Express.js and utilized the yt-dl module to fetch and process YouTube data for seamless downloads.
- Deployed the application on Vercel, ensuring reliable performance and easy access for users.

Spotify Clone

 $Live\ link$

- Developed a Spotify clone using HTML, CSS, and JavaScript, displaying playlists and their respective songs.
- Implemented audio controls including play, pause, next song, previous song, and a volume bar for seamless music playback.
- Created an interactive trackbar for tracking and seeking within songs, allowing users to navigate tracks by tapping anywhere on the trackbar.

Course Projects

• Engineered and coded a self-balancing robot utilizing Arduino UNO, motor drivers, and gyroscope sensors, showcasing expertise in hardware integration and control system implementation.

Robotics

Key Skills

- Programming Languages: C/C++, Python, HTML, Javascript
- Tools: Git and Github, Vercel, Postman, Linux, Docker, Azure
- Framework/Libraries: Tailwind CSS, React.js, Node.js, Express.js, MongoDB, Tensorflow
- Soft Skills: Strong leadership, Communication, Adaptibility skills, Teamwork and Positive Attitude

Position of Responsibility Core Team

Team 3D, Alma Fiesta, IIT Bhubaneswar

(May 2021 - present)

- Directed video production activities for the cultural fest, utilizing Adobe Premiere Pro and After Effects to edit engaging content, thereby enhancing event promotion and documentation.
- Supervised a team of associates in campus decoration endeavors, orchestrating creative designs and installations to elevate the ambience and thematic allure of the festivity.

Extra-Curricular Activities

- Gold level Research Consultant at Worldquant Brain.
- Secured first position in Data Detective, a prestigious data analysis competition organized by Wissenaire of IIT Bhubaneswar, showcasing strong analytical skills and problem-solving abilities.
- Member of Produit, a product development society, and Cinewave, a cinematic society, actively contributing to innovative projects and fostering a culture of creativity and entrepreneurship.