Abhishek Chakram

Linkedin: linkedin.com/in/abhishekchakram/
Github: github.com/Abhiiitkgp1001

Email : abhishekchakram@gmail.com
Mobile : +91-7479786278
CodeChef: codechef.com/users/rdrkshkhrn/

EDUCATION

- **Indian Institute of Technology Kharagpur** — Kharagpur, India
  Bachelor of Technology; CGPA: 8.14/10.0 — *Jul 2019 - Apr 2023*

SKILLS

- **Programming**: C, C++, Dart, Python, Java, HTML, CSS, JavaScript, Node, Flutter, LIT, JsDoc, React, Express, Next, React Native
- **Tools**: AWS, Azure, MySQL, Selenium, Firebase, JIRA, Lambda, SQLite, MATLAB, GIT, XCode, VSCode

EXPERIENCE

- **Mathworks** — Hyderabad, IN
  Software Engineer — *Aug 2023 - Present*
  - Developed a robust communications system facilitating seamless interaction between diverse contexts via channels employing publisher-subscriber architecture, strategically applying the system design principles.
  - Created resize and drag utilities from scratch to meet company standard for integration in numerous widget in upcoming MATLAB Online release, also lowering the memory consumption by 12% with respect to the previous.
  - Integrated filtering, websockets and replaced the old state management system with redux to manage the state of the complete app resulting in 25% increase in performance. Also poficiently crafted multiple pages within the application to optimize data visualization and enhance user experience, leveraging React.js, HTML, and Tailwind CSS.
  - Won the best enhancement award for my prototype in Hack Day 2023 organised within MathWorks

- **Calculus Carbon** — Bengaluru, India
  SDE - Backend — *May 2023 - Jun 2023*
  - Created backend in python that uses selenium web driver to scrape carbon data from different public registries
  - Architected a scalable system on Azure to handle large volumes of data and facilitate efficient data processing. Automated the entire flow using Blob Storage, Data Factory, Azure SQL Database which facilitated real-time updates in Dashboards leading to increase in user-base by 35%

- **Metfolio** — London, UK
  Software Developer — *Feb 2023 - Apr 2023*
  - Created a modular backend function for the historical and live gold price data using Node and Express and hosted it on AWS Lambda. Increased the user engagement on the mobile application by 25%
  - Integrated new UI design, Stripe payment system, Apple Pay and Google Pay for Gold payment and Analytics SDKs in the metfolio's mobile application. Also developed the frontend of the company's admin panel from scratch.

- **Mathworks** — Hyderabad, India
  Software Development Intern — *May 2022 - Jun 2022*
  - Created a Link Budget application connected with satellite scenario to allow dynamic computation of parameters
  - Integrated a interactive viewer for better visualization along with graphs and tables that are rendered dynamically

PROJECTS

- **AI-Powered Process Builder**: Developed a web application using MERN enabling users to create, manage, and store process definitions. Implemented two modes of input: AI-assisted input using a gpt-3.5-turbo model and manual process definition. Implemented a logical, efficient, and scalable database schema to support final stpes storage. ***Link***
- **BTP Project (Prof Vikrant, IIT Kharagpur)**: Designed a mobile application using React Native to monitor the live battery performance data of an EV sent through a self-developed sense PCB. Integrated Bluetooth and GPS support in the app. Computed the shortest path using A* and Dijkstra's Algorithm. Also ensured proper visualization of data through dynamic charts
- **Project Hunt**: Created a web portal where users can post their project ideas with all relevant information such as their tech stack, the required criterias for the other team members, and find their compatible team members. Built on the MERN stack with Redux and MongoDB Atlas as the cloud database. Applied the auth middleware using redux-thunk
- **2048 Game**: Developed a web application game, 2048 using React.js, that can be played in any Y*Y grid. Implemented the game's logic using multiple complex matrix algorithms in react components, allowing for a smooth and interactive user experience. Deployed the game using a cloud-based hosting platform, netlify, ensuring accessibility from any web browser. ***Game Link***
- **Notes App**: Created on the BLoC pattern using Flutter and SQLite database with features like add, edit and remove notes

COMPETITONS

- **CodeChef Contest**: Secured Global Rank 8 in CodeChef live contest, with 10000+ participants
- **Website Hackathon (TSG, IIT Kharagpur)**: Created a students' portal on MERN stack that bagged the Silver prize in the Hackathon with 100+ teams. Also won Best Feature Award for Students Profile, Society Point and for Innovative feature
- **OpenSoft**: Created a scalable app using Microservice Architecture. Used Hybrid Cloud Solution to ensure high availability using REST API. Designed a dashboard using React to visualize the up-down status of each microservice and send alerts to users using Fast2SMS when a cluster is down. Also built a food Ordering Application using Antd and Node for both users and restaurants
- **Smart India Hackathon, 2022**: Represented IIT Kharagpur in SIH, 2022 with a team of 6 people as a Team Leader on the problem statement to develop a software that finds suitable places to install EV charging stations in a city