# **Uday kumar Gangapuram**

#### Education

#### Indian Institute of Technology, Guwahati

July 2019 - May 2023

Bachelor of Technology in Electronics and Communication Engineering (CGPA: 6.97)

Guwahati, Assam, India

• Relevant Coursework: Data Structures and Algorithms (C++), Probability and Random Processes, Computer Networks, Digital circuits.

### Experience

Jio Platforms Limited

Aug 2023 - Present

Software Engineer Navi Mumbai, India

• Developed and maintained multiple **frontend components in React.js**, delivering responsive, scalable, and reusable UI modules

- Built and deployed Node.js (Express) APIs with MongoDB, supporting CRUD operations and data management.
- Contributed to **Project JLD**, implementing device ordering, wallet recharge functionality, and **integrating a payment** gateway.
- Led development of a configurable **SCM Admin Dashboard**, enabling CRUD operations for masters, user onboarding, and integration with **SAP systems**.
- Implemented advanced features including Excel template downloads (customizable reports with column/sub-column selection) and Role Configuration (role-based access with minimal payload changes).
- Collaborated on end-to-end integration of frontend and backend modules, optimizing user access, improving configurability, and supporting migration from **SAP Fiori** to an open-source **React-based dashboard**.

#### **Projects**

## **Energy Trading & Vehicle-to-Grid Platform**

Dec 2024 - Jan 2025

Technologies: React.js, Node.js, MongoDB, Hyperledger Fabric, MQTT, Python, Docker

github

- Collaborated with a team to develop a full-stack **V2G/P2P energy trading platform**, enabling peer-to-peer energy transactions between electric vehicles with real-time monitoring and automated execution.
- Worked on **frontend development in React.js**, designing a user-friendly interface and implementing seamless **frontend-backend integration** through a Node.js API gateway.
- Contributed to designing the **system architecture** and integrating a **Hyperledger Fabric** blockchain network with Go-based smart contracts for secure transaction recording, authentication, and audit trails.
- Assisted in building a real-time energy monitoring system using the MQTT protocol and Python, enabling live telemetry data, battery capacity tracking, and automated transaction triggers.
- Supported the development of an analytics dashboard with **Chart.js** visualizations for trading metrics, transaction history, and geospatial user insights, along with a scheduler using **cron jobs** for automated energy transfers and role-based access.

Instagram App Clone July 2021

Technologies: Flutter, Dart, Firebase Authentication, Firebase Firestore, Firebase Storage

github

- Collaborated with a team to build a fully functional **Instagram clone** using **Flutter**, featuring a dynamic and responsive user interface.
- Contributed primarily to the **frontend development**, focusing on widget composition, UI design, and smooth navigation flows.
- Implemented core features including account creation and editing, image posting, follow/unfollow functionality, and integrated **Firebase** as the backend database for real-time data synchronization.

#### File Zipper and Opener

Dec. 2021

Technologies: C++, Huffman Coding, Min Heap, Binary Tree

github

- Developed a file compression and decompression tool using the **Huffman coding** algorithm to efficiently reduce text file sizes.
- Implemented core data structures including **Min Heap** and **Binary Tree** to generate unique binary codes for distinct characters based on frequency of occurrence.
- Designed functionality to compress input text into a smaller encoded file and accurately reconstruct the original file through decompression.

#### **Technical Skills**

Languages: C++, C, JavaScript, Python

Technologies: HTML, CSS, ReactJS, Redux, Android Studio, NodeJS, ExpressJS, Django\*, Google Firestore\*

**Database Management**: MySQL, MongoDB **Tools**: Git, Microsoft Azure, Figma, LaTeX

# Achievements and Extracurriculars

- **BYD EV hackathon:** Selected among the top **10** teams out of 3191 teams, for the innovative project "P2P Energy Trading of EVs Using Blockchain Technology".
- HackerRank 5-Star Badge: Reached Gold level in programming of problem-solving section of HackerRank platform.
- Web Development Workshop: Attended a 2-week workshop on Web Development in Django Framework conducted by Student's Web Committee of IIT Guwahati.