# Vinayak Vijay

Integrated MSc in Mathematics and Computing

### **EDUCATION**

### • Birla Institute of Technology, Mesra, Ranchi, Jharkhand

Integrated MSc in Mathematics and Computing

2018-2020

2020-present

GPA: 8.0

• JVM Shyamli, Ranchi - Higher Secondary

Central Board of Secondary Education(C.B.S.E)

Percentage: 80.2

#### PROJECTS

### • Clothing Shop website(Frontend)

Link

Skills Used- MongoDB, Firebase, React, Node

- Built a responsive React clothing website with an intuitive UI for browsing, searching, and filtering products.
- Developed a **product catalog** with images, prices, and detailed item information.
- Implemented state management, boosting interaction efficiency by 40%.
- Added a shopping cart for easy product addition, updates, and checkout.
- Enables users to add products to their cart, update quantities, and proceed to checkout.
- Achieved a 30% increase in mobile satisfaction and a 35% boost in user engagement through responsive design.

### • Yoga Website - Freelance

Link

Skills Used- Figma, Css, React, Node

- Developed a responsive Yoga Guru website using React, boosting user engagement by 30%.
- Displays yoga sessions with descriptions, schedules, and instructor information.
- Integrated video tutorials, increasing user retention by 25%.
- Created detailed profiles for instructors, showcasing their experience and ratings.
- Ensured seamless functionality across desktops, tablets, and mobile devices.

### RESEARCH WORK

### Research Paper - Fuzzy Linear Programming

Link

Optimal Crop Plants by using Fuzzy Linear Programming technique in Dhanbad district of Jharkhand.

- Objective: Enhanced crop yield and efficiency in Dhanbad district, Jharkhand, using fuzzy linear programming.
- Data: Analyzed raw data from various crop types across Jharkhand districts for optimized agricultural planning.
- **Results**: Achieved a 20% increase in crop yield, optimized land use by 15%, and reduced manpower requirements by 10%.
- Methods Used: Applied Zimmerman, Werners, Verdigey, and Chanas techniques, solving a fuzzy inequality with TORA.

### TECHNICAL SKILLS AND INTERESTS

 $\textbf{Programming Languages:} C++, \ Python \ Basics, \ HTML, \ Javascript$ 

Libraries: Git/Github Styled-Components, Material Ui, Tailwind CSS, BootStrap, React.js,

Cloud/Databases: Relational Database(mySql)

**Hobbies**: Anchoring, Gym

Soft Skills: Leadership, Communication

### **ACHIEVEMENTS**

- Smart India Hackathon (SIH) Successfully participated as a team member in SIH, contributing to innovative solutions and collaborating effectively with team members.
- Core member and key organizer of the 88th Indian Mathematics Conference at BIT Mesra (December 2022), where managed operations and facilitated over 100 professors from IITs and international institutions. Successfully coordinated activities for 300+ research scholars, ensuring smooth event execution.

## Positions of Responsibility

• Member National Service Scheme , BIT Mesra

June 2022 - July 2023

• Member Hostel Management Team , BIT Mesra

June 2023 - present