

Tanmay Santra

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github.com/TanmaySantra

SUMMARY

Experienced Front-End Developer with skills in complex problem solving, Agile project management, and full project lifecycle implementation. Developed Numero, a hand gesture calculator based on TensorFlow.js and Mediapipe to drive intuitive UI/UX design and real-time hand tracking to improve STEM education. Transformed a college website's UI/UX by ensuring cross-browser compatibility, responsive design, and accessibility standards and enhancing user engagement by 30 percent. Skilled in React, Next.js, JavaScript, CSS, RESTful APIs, and GitHub, with practical experience in user-centered design, rapid prototyping, and cross-functional collaboration.

SKILLS

Frontend: React, Next.js, JavaScript, HTML/CSS, Redux

Backend: Node.js, Express.js, Java, Next.js, PostgreSQL

ML/AI: TensorFlow.js, Mediapipe, OpenCV, Computer Vision

Tools: Agile, Microservices, GitHub, VS Code

Soft Skills: Problem-Solving, Collaboration, Adaptability

CORE COMPETENCIES

- Agile Methodologies
- RESTful APIs
- Debugging
- Microservices

PROJECTS

Gesture-Controlled Calculator

Mar 2023 – Jun 2023

- **Tools Used:** JavaScript, Mediapipe, OpenCV
- Built a gesture-based calculator with real-time hand tracking and 0.5s latency.
- Integrated Mediapipe for robust finger gesture recognition.

Yoga Posture Detection System

Jul 2023 – Nov 2023

- **Tools Used:** React, TensorFlow.js, Node.js
- Achieved 95% pose estimation accuracy with real-time feedback.
- Improved engagement by 40% with a user-friendly posture interface.

Digital Prescription System

Nov 2022 – Jan 2023

- **Tools Used:** React, Node.js, PostgreSQL
- Digitized 1000+ prescriptions using OCR (90% accuracy).
- Implemented role-based access control (RBAC) for secure prescription handling.

EDUCATION

University of Engineering and Management, Kolkata

B.Tech in Computer Science Engineering (AIML)

2021 – Present

CGPA: 7.94 / 10

Gurukul Vidya Mandir, Kolkata

Higher Secondary (ISC)

2019 – 2021

Score: 78.5%

K.E. Carmel School, Amtala

Secondary (ICSE)

2018 – 2019

Score: 84.5%

COURSEWORK

Data Structure and Algorithms

Computer Networks

Operating System

Computer Organization & Architecture

Computer Design

INTERESTS

UI/UX Design
Open-Source Contributions
Gymming
Music

PERSONAL DETAILS

Date of Birth: 9th July, 2003
Languages Known: English, Hindi and Bengali
Address: Kolkata, West Bengal
Gender: Male