# SHUBHAM DAS

■ EMAIL II LINKED IN GIT HUB </>
IEET CODE # PORTFOLIO



#### **Technical Skills**

Languages: Python, C++, JavaScript

Web Development: HTML, CSS, React.js, REST APIs, JWT, Socket.IO

Frontend: React.js, Redux Toolkit, Tailwind CSS, Bootstrap

Backend: Firebase (Auth & DB) and Appwrite, FastAPI, MongoDB, Mongoose,

Database: MongoDB, Firebase Realtime Database

Concepts: Data Structures and Algorithms, Object-Oriented Programming, Operating System

Tools: Git; GitHub; VS Code; Docker; Postman; Vercel; Render; AWS (Basics); DevOps (CI/CD, Deployment)

# Experience

# Naresh Vashisht Centre for Tinkering and Innovation (NVCTI)

May 2025 - Jul 2025

Dhanbad, India

AI/ML Intern

• Developed and deployed an intelligent chatbot leveraging NLP models, RAG pipelines, and agentic workflows

• Integrated the chatbot with the student portal, enhancing academic query resolution and reducing manual workload by 40%.

# **Projects**

# NeuroCart - Product Decision Assistant | React.js, HTML, CSS, EDA, FastAPI, LLM [Live] [Fr

[Live] [Frontend] [Backend]

- Conducted comprehensive EDA on user reviews to extract trends, sentiment distribution, and actionable insights.
- Built a FastAPI backend to preprocess and serve data for real-time LLM-driven sentiment analysis and decision support. (June-July 2025)

#### IIT ISM ChatBot Assistant | React.js, Appwrite, RAG, LLM, GPT-4o-mini, Pinecone, NLTK

[Frontend] [Backend]

- Developed a smart chatbot for IIT ISM students integrating backend APIs, vector-based search, and GPT-4o-mini for accurate, context-aware responses.
- Implemented a Retrieval-Augmented Generation (RAG) pipeline using Pinecone and embeddings, with text preprocessing, tokenization, and entity recognition via NLTK. (April-July 2025)

#### BHARATLINKER | MERN, Redux Toolkit, JWT, MongoDB

[Live] [Frontend] [Backend]

- Built a full-stack B2B platform for businesses to register, connect, and collaborate.
- Implemented role-based JWT authentication and dashboards for Admin, Buyer, and Seller.
- Managed global state with Redux Toolkit and optimized APIs with Redux Thunk. (June-Dec 2024)

#### Projects - Core Subjects

#### Regression Model from Scratch | Machine Learning, Linear Algebra, Python (6th Sem)

- Built a linear regression model from scratch using NumPy with gradient descent and normal equation.
- Tested on real datasets and benchmarked performance against scikit-learn implementations.

#### Hostel Accommodation System | OOP, File Handling, STL, C++ (5th Sem)

- Developed a console-based hostel management system with bed reservation using OOP and STL.
- Implemented file handling for persistent storage and real-time updates.

### Mutual Exclusion Simulation | Operating Systems, Mutex, Threads, C++ (4th Sem)

- Simulated Peterson's algorithm and mutex locks to ensure process synchronization.
- Visualized critical section handling and race condition prevention in multi-threaded environment.

#### Education

# **Indian Institute Of Technology Dhanbad**

Expected May 2026

**Bachelor of Technology in Engineering Physics** (GPA: 7.08 / 10)

Dhanbad, Jharkhand

• Relevant Coursework: Data Structures and Algorithms (C++), Probability and Statistics (Python), Linear Algebra, Machine Learning Fundamentals, and Introduction to Artificial Intelligence — building a strong foundation in analytical thinking, data handling, and intelligent system design. Computational Physics, Quantum Computing.

Saraswati Devi Public School

May 2022

Class 12 (GPA: 9.1/10) Kandi, West Bengal

# **Achievements**

- Solved 600+ DSA problems across LeetCode, GeeksforGeeks, and HackerRank, strengthening problem-solving and real-time coding efficiency.
- Achieved top 0.75% (Rank 1500)LeetCode Weekly Contest 452, demonstrating algorithmic speed and accuracy under pressure.
- Built BharatLinker in a 24-hour sprint at Code-ISM Hackathon 2024, leading a 3-member team to develop a scalable full-stack product and secured **Runner-Up** position.

# Social Engagements

- Contributed to CYBER LABS at IIT Dhanbad by collaborating on software development projects and organizing technical events.
- Led coding workshops for underprivileged children at KARTAVYA, an NGO run by IIT Dhanbad students.
- Active chess player, sharpening strategic thinking and problem-solving abilities.