## **RUPDIP DAS**

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#### **PROFILE**

Full Stack Developer | GenAI Engineer | Full Stack GenAI Developer skilled in integrating AI into web apps, building RAG systems, and creating memory-aware agentic AI tools. Experienced in delivering scalable, real-world solutions using React, Node.js, Express, Mongoose and modern AI frameworks like LangChain, Neo4j, Qdrant, RAG pipelines etc.

#### **SKILLS AND TECHNOLOGIES**

**Languages:** Python, JavaScript, C++, C, Typescript

GenAI & AI Systems: LangChain, LangGraph, Hugging Face Transformers, Memory-aware AI Agents,

RAG Pipelines, Tool Binding, LLM as Judge, Vector and Graph Embeddings(Qdrant, Neo4j)

Frontend: HTML, CSS, React.js, Next.js, Tailwind CSS, Bootstrap, Material UI, Responsive Design

Backend: Node.js, Express.js, MongoDB, Mongoose, REST APIs, OAuth, JWT Authentication

Additional Skills: Git, Data Structures and Algorithms, Object Oriented Programming, Problem solving

## **PROJECTS**

### Terminal-based Mini Cursor Demo Github

- Built a terminal-based autonomous AI agent capable of creating full-stack project structures, generating code, and managing files and folders dynamically.
- Integrated Gemini Flash 2-0 LLM with OpenAI SDK and tool calling to run commands on terminal and read, write file
- Tools: Python, OpenAI SDK (Gemini API), OS & FileSystem Modules, JSON Handling, Prompt Engineering

### AI Code Reviewer Demo Github

- Developed a full-stack code review application that uses Gemini LLM to analyze and provide feedback on user's code.
- Created a responsive React Frontend for real time code submission and Express backend to process the request to LLM
- Tools: React.js, Vite, Tailwind CSS, Node.js, Express.js, Express Router, Gemini LLM, JSON & Prompt Handling

## Advanced PDF RAG System Demo Github

- Built a RAG system that retrieves data from PDFs and answers questions using LLM integration.
- Implemented parallel fan-out queries, step-back prompting, and reciprocal rank fusion for enhanced results.
- Used Qdrant DB for vector storage and Neo4j for memory management and graph-based knowledge retrieval.
- Tools: Python, Qdrant, Langchain, Gemini, Parallel Query Fan-Out, Step-Back Prompting, Reciprocal Rank Fusion

### Markdown Parser Live Github

- Developed a markdown parser in React.js that converts markdown syntax into rendered HTML elements in real-time.
- Built a responsive, clean editor interface using Tailwind CSS and Vite for fast performance.
- Tools: React.js, Tailwind CSS, Vite, JavaScript

## Currency Exchange App <u>Live</u> <u>Github</u>

- Made a real-time currency exchange platform in React that uses an API to fetch live exchange rates.
- Created a responsive Frontend that allows to select currencies and convert amounts seamlessly with real-time data.
- Tools: React.js, API Integration, Tailwind CSS, Responsive Design, JavaScript

### Injury Tracker <u>Live</u> <u>Github</u>

- Made an app where users mark injuries on a human body diagram, provide descriptions, and select gender.
- Enabled dynamic pointer placement with form inputs, real-time injury list rendering, and simulated backend submission.
- Tools: React.js, TypeScript, HTML, CSS, Tailwind CSS

## **EDUCATION**

### JADAVPUR UNIVERSITY - Kolkata, West Bengal

Bachelor of Engineering - Electronics and Telecommunication Engineering

Expected Aug 2027

#### **ACADEMIC EXCELLENCES**

W/DIEE 2022   David 442   1	IEE MAINS 2023 - 98.5%ile	IEE ADVANCED 2023 - AIR 13k
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