

Abhirup Bhattacharyya

Backend Developer

MEAN | MVC | Angular | Nest.js | REST API | GraphQL | SQL | Redis

abhirup27022001@outlook.com

<https://github.com/Abhirup27>

+91 8929741066

Greater Noida, U.P., 201301,
India

Recently graduated with an MCA postgraduate degree, with strong expertise in web application development, computer networks, and operating systems. Experienced in building robust, user-friendly web applications through hands-on project development. Passionate about leveraging technical knowledge to solve complex challenges in web development and game development. Previously contributed to an open-source community game project on GitHub.

Projects

Shopify Inventory Management App

Jan 2025 – Ongoing

Technologies: Nest.js, Redis, Express.js, GraphQL, REST, JWT

- Developing an app which automates processes for the management of Shopify stores. This app is made by using Shopify's admin API which supports GraphQL and REST API.
- Real time updates for orders, products, customers, and stores are received through the configured webhooks for each store.
- Worker threads and queues are used for frequent or computationally heavy tasks that would slow down the main thread. This is done so that the app can serve more requests.
- Implemented role based authentication and authorization using JWT.
- Implemented rate limiting to prevent the system resources be overloaded by potentially malicious clients.

Golf Tournament App

Dec 2024 – Jan 2025

Technologies: Fetch API, Ngrok, Node.js, Express.js, EJS, Tailwind CSS

- Developed an app which was used in an actual golf tournament of 72 players. It uses stableford scoring system to calculate the scores.
- Implemented simple registration and login system with session based authentication.
- Used fetch API to fetch updates from the server. This is used in the score table, admin, players endpoint
- Implemented an admin page to administrate the tournament and the matches smoothly. It allows to control every aspect of the match and the players.
- Used ngrok to expose the locally running server to a public domain.
- Each player is able to enter their scores.
- Made the app easy to use by implementing a simple UI using tailwind CSS.

Core Skills

- JavaScript
- TypeScript
- Node.js
- Express.js
- Nest.js
- Angular
- Embedded JavaScript
- JWT
- Docker
- Linux
- Git
- C++11
- C
- GDB
- SQL
- ORM
- MongoDB
- Object Oriented Programming
- Data Structures
- Computer Networks

GitHub Contributions

2D Community Game

Implemented Procedural map generation using cellular automata theory and tile texture placement logic.

Certification

Fullstack Web Development

Udemy

NodeJS App Development

Udemy

Blogging Web App

Sept 2024 – Dec 2024

Technologies: Node.js, Express.js, EJS, Sequelize, Docker, Tailwind CSS

- Developed a dynamic blogging platform with a robust word processor for image embedding and formatting.
- Implemented responsive UI and advanced text editor, simulating a Word document experience.
- Currently working on migrating the backend to model controller view design using Nest.js and TypeScript to help project maintainability and readability.
- Implementing JWT, a search feature and a live feed to enhance security and user engagement.

Football Match Analysis Neural Network

April 2024 – June 2024

Technologies: Python, YOLO, OpenCV, Pandas

- Analyzed football matches using object detection (YOLO) and player movement via optical flow.
- Assigned players to teams using K-means clustering based on jersey colors.
- Calculated ball control time by tracking the closest bounding boxes, delivering actionable insights on team performance.
- Used interpolation functions from the pandas library due to facing issues with missing bounding box positions of the ball in several frames.

Education

Master's Degree

Master of Computer Applications

8.08/10

November 2022 – July 2024

At Galgotia's College of Engineering and Technology

Bachelor's Degree

Bachelor of Computer Applications

65.47%

August 2019 – June 2022

At Greater Noida Institute of Management

Languages

English (Proficient)

Hindi (Native)

Bengali (Native)