Aaditya Agarwal

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EDUCATION

- **Indian Institute of Technology (BHU) Varanasi**   Varanasi, India
  B.Tech + M.Tech (Integrated Dual Degree) - Computer Science and Engineering   *2023-Present*
  Current CGPA: 9.34
- **Ahlcon Public School**   Delhi, India
  CBSE (CLASS XII) Grade: 94.8%   *2023*
- **Ahlcon Public School**   Delhi, India
  CBSE (CLASS X) Grade: 95.6%   *2021*

SKILLS

- **Programming Languages:** C, C++, HTML, CSS, JavaScript, TypeScript, SQL, Java, Python, Golang

- **Technologies & Frameworks:** React, NextJS, Node.js, Express, MongoDB, , Django, Tailwind CSS, Postman, Bash Scripting, Linux, Github, Docker, Prisma, PostgreSQL, AWS, Cloud, Turborepo/Monorepo

- **Course Work:** C, Linux Fundamentals, Data Structures and Algorithms, Operating Systems, Artificial Intelligence, Machine Learning, Software Engineering

PROJECTS

- **Kitty Bank: Online Wallet System**
  Monorepo-Based Digital Wallet with Bank API & Webhook Service   *January 2025 - February 2025*
  - Developed an online wallet system with a backend-driven payment flow, replicating real-world wallet architectures. The system consists of a User Wallet (using Next.js), a mock Bank API (using Next.js) for secure token-based payment authorization, and a webhook service(using Express.js) for real-time transaction updates.
  - Designed seamless bank-to-wallet transfers where the Bank API auto-approves payments by verifying transaction tokens, eliminating manual user input. The webhook service ensures finality of the transaction by updating the wallet database upon bank confirmation.
  - Leveraged a monorepo with Turborepo for efficient development, deployed Next.js apps on Vercel for scalability, and hosted backend services on AWS EC2 for reliability.
  - Tech Stack: **Next.js, TypeScript, Express.js, Node.js, Prisma, PostgreSQL, Turborepo, AWS (EC2), GitHub**

- **Charcha: The Chat Application**
  Real-Time Messaging Application   *August 2024-October 2024*
  - Developed a dynamic chat application enabling real-time messaging for personal and group conversations. Key features include secure one-on-one chats, community-driven chat rooms, and category-based search for easy topic discovery.
  - Built with React (TypeScript), Tailwind CSS, and Django Channels for real-time WebSocket handling, backed by Redis and PostgreSQL. Docker containerization ensured streamlined deployment and scalability.
  - Tech Stack: **React(TypeScript), Tailwind CSS, Django, Django(Channels), Redis, Recoil**

- **Task Scheduler**
  Task Management Application   *May 2024 - June 2024*
  - It is a MERN stack task management application designed to help users add and manage daily tasks efficiently, incorporating features for authentication and data persistence.
  - The project showcases proficiency in using JSON Web Tokens (JWT) for secure authentication and local storage, along with Fetch API for handling GET, POST, PUT, and DELETE requests..

- **The Budget Tracker**
  Finances Tracking Application   *April 2024*
  - It is an e-wallet system designed to empower users in managing their finances and achieving financial wellness. It provides personalized budgeting tools tailored to individual spending habits. Users can set monthly budgets and spending restrictions for different categories such as partying, shopping, and junk food.
  - The project demonstrates a firm grasp on concepts such as Routers, Context API, Hooks in React, React-Hook-Form, Styling using Tailwind CSS.

- **Spotify Player Clone**
  Music Streaming Application   *March 2024*
    - It is a music streaming application that allows users to listen to songs and enjoy various features similar to the original Spotify platform.
    - The project demonstrates a firm grasp on concepts such as Async Nature of Javascript, JSON, Event Listeners, CSS Grid, Local Storage, Responsiveness across various devices.

POSITION OF RESPONSIBILITY

Quant Club | *Development Team Member* (August 2024 – Present)

ACHIEVEMENTS

- **Runner Up** in the Mathematics Competition Numerator-Denominator'23 organised by the Mathematics and Computing Department at IIT BHU.
- Winner in the Solo Instrumental Competition in Aagman'23 hosted at IIT BHU.
- **Runner Up** in Venture Verse'24 conducted during E-Summit'24 organized by the Entrepreneurship Cell of IIT BHU.
- Completed the **Postman API Fundamentals Student Expert** course successfully.
- Secured **1225 Rank** among 1.8 lakh candidates in JEE Advanced 2023.
- Secured **99.85 percentile** among 11.7 lakh candidates in JEE Mains 2023.
- Achieved a maximum rating of **1460** on Codeforces.