SAHIL MADAAN

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Education

National Institute of Technology Srinagar, J&K

Bachelor of Technology in Computer Science & Engineering   *August 2023 – August 2027*

Overall CGPA: 9.74   *till 4th sem*

Projects

Fnky – Functional Programming Language Interpreter - Rust   GitHub

- Designing and Implementing a lightweight, expressive interpreter emphasizing functional execution, with `fn` (functions) as the core construct.
- Developed in Rust to ensure performance, safety, and concurrency, resulting in a fast and secure interpreter. .
- Focused on clean syntax and expressive semantics, enabling users to compose scripts and expressions with flair.
- Emphasized modularity and extensibility, allowing for future enhancements and integrations.

GoPark — Full-Stack Parking Management Suite   GitHub

- **Developed** a complete parking management system within a monorepo architecture using **Next.js** and **NestJS**.
- **Integrated** GraphQL and REST APIs with **Prisma ORM**, **Stripe** payments, and **Next-Auth** for authentication and authorization.
- **Built** an interactive, modern UI using **Material UI**, **Tailwind CSS**, and 3D visualizations with **React-Three-Fiber**.
- **Employed Nx**, **Docker**, **ESLint**, and **Prettier** to ensure scalable architecture and maintainable code quality.

CodersHouse — Real-Time Voice Chat Web Application   GitHub

- Built a WebRTC-based voice chat app using the MERN stack for real-time peer-to-peer audio communication.
- Designed and implemented secure authentication, account activation, and protected routes using JWT, Redux, and React Router.
- Integrated Socket.io for signaling and real-time event handling across dynamic rooms.
- Focused on creating a responsive UI and smooth user experience for real-time interactions.

Experience

Backend Developer Intern   *May 2025 – Present*

Medino's (Remote)

- Integrated **CSV upload functionality** for managing pharmacy orders by retailer pharmacies.
- Simulated and integrated the **order complaints propagation workflow**, ensuring smooth transitions across different stages of development.
- Optimized backend dependencies to help **reduce app size from 67 MB to 55 MB**, improving performance and efficiency.
- Collaborated with the **frontend team** to resolve issues during testing and ensured smooth deployment before making features live in production.

Technical Skills

Languages: C, C++, Rust, JavaScript, TypeScript, Python, HTML5, CSS3
Frameworks: Node.js, NestJS, Express.js, React.js, Next.js, Tailwind CSS
Databases: PostgreSQL, MySQL, MongoDB
Cloud Platforms: Microsoft Azure, Amazon AWS
Developer Tools: Git, GitHub, VS Code, Bash, Neovim, Jira, MS Project, Postman
Methodologies: Agile, Scrum, Software Development Life Cycle (SDLC), DevOps practices
Other Skills: Artificial Intelligence, Machine Learning, Data Analysis & Visualization (Excel, Power BI, SQL), Stakeholder Management, Problem-Solving, Analytical Thinking, Team Collaboration, Communication Skills

Subjects

Data Structures and Algorithms, Object Oriented Programming, Discrete Mathematics, Database Management Systems, Operating System, Microproecssor, Design and Analysis of Algorithms.

Interests

Full-Stack Development, Systems Programming, Open Source Contribution, Machine Learning, Competitive Programming, Data Structures, Artificial Intelligence