Aryan Bargal

Education

Expected May 2025 National Institute of Technology, Bhopal Bachelor of Technology in Electrical Engineering (CGPA: 8.22 / 10.00) Bhopal, M.P. Carmel Convent Senior Secondary School Ratanpur, Bhopal 2021 CBSE Class 12th (Percentage: 93 / 100) Bhopal, M.P. Carmel Convent Senior Secondary School Ratanpur, Bhopal 2019 CBSE Class 10th (Percentage: 93 / 100) Bhopal, M.P.

Experience

June 2023 - July 2023 **Robonauts India**

Summer Trainee Bhopal, M.P.

- Designed and implemented various sensors using op-amp, transistors, and other electrical components.
- Integrated various sensors such as touch, temperature, metal detector, and gyroscope with LCD displays for interactive applications using Arduino IDE and Arduino Uno.
- Utilized ESP32 microcontroller for Internet of Things (IoT) projects and connected devices to platforms like ThingSpeak and Blynk to monitor and control systems remotely.

Projects

ProtoTwit | Next.js, MySQL, Prisma, LiveKit, TailWindCSS

Live Demo

- Led the development of a live streaming platform, using Next.js and deployed on Vercel, resulting in a 25% increase in user engagement.
- Integrated real-time video streaming and chat functionalities using LiveKit, enhancing user interaction and reducing response time by 20%.
- Designed and managed the database using MySQL and Prisma, ensuring efficient data handling and a 30% improvement in query performance.

Team UP | Next.is, Convex, Clerk LiveBlocks, TailWindCSS

Live Demo

- Developed a collaborative, real-time whiteboard using Next.js, enabling multiple users to draw simultaneously and see each other's cursors, enhancing productivity by 30%.
- Integrated real-time database functionality using Convex and Clerk, supporting features like adding shapes, sticky notes, and pencil drawings.
- Implemented key features including layering, undo and redo, and real-time collaboration, resulting in a significant improvement in user engagement.

Technical Skills

Languages: C/C++, Python, JavaScript

Frameworks: Node.js, Express.js, React.js, Next.js, Bootstrap, TailWindCSS

Developer Tools: Git, Github, VS Code, Vim, Docker, Kubernetes

Databases: MySQL, PostgreSQL, MongoDB

Python Libraries: Numpy, Pandas, Matplotlib, SciKit Learn, OpenCV

Concepts: Data Structures and Algorithms, Object-Oriented Programming, Operating system, API, Agile Methodology

Achievements

Completed over 500 DSA problems on platforms such as Leetcode and CodeForces.

LeetCode Link

- Successfully showcased a prototype during the intra-college Hackathon, HackByte 2.0. (Apr 2024)
- Achieved 1st place with the team in a college-level robotics competition, Make-A-Thon. (Nov 2023)
- Secured Runner-Up position in the Auto-Max a college-level robotics competition. (Sept 2022)
- Represented India at the World Robotics Olympiad with the team in a global competition. (Nov 2015)

Social Engagements

Web Developer Lead: Of Evolve - the Technical EV Club of NIT Bhopal

Club Member: at Zenith - the Coding Club of NIT Bhopal

Volunteer: at Maffick - the annual cultural festival at NIT Bhopal, organizing a group of artists for mural painting.