BALAJI B

B.E.(ECE)

St Josephs institute of technology

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.E(ECE)	St josephs institute of technology	8.03(Current)	2024-Present
Vivekananda vidyalaya matric higher Secondary	State Board	88.3%	2022
vivekananda vidyalaya matric higher sec school	state Board	74.4%	2020

INTERNSHIP

- **BSNL – Bharat Sanchar Nigam Limited** *June 2024*
  Telecommunication Internship — Chennai, India
  - **Gained knowledge in telecommunications:** Acquired insights into industry technologies and practices. Designed communication protocols and network infrastructure.
  - **Worked on network optimization:** Implemented strategies to improve network performance. Analyzed and improved data throughput and efficiency.
  - **Assisted in troubleshooting issues:** Identified and resolved technical problems in the network. Used diagnostic tools to maintain system reliability.

- **APTITUDE GURU HEM** *June 2025 – Present*
  Front-End Developer Intern — Remote / Chennai, India
  - **Building Interactive UI Components:** Developing responsive user interfaces using **React.js**, **Styled Components**, and **Tailwind CSS** for a problem-solving platform.
  - **Form Handling Modal Integration:** Designing and implementing dynamic modal-based forms for adding aptitude problems with fields like topic, input/output, and test cases.
  - **State Management UX Enhancement:** Using **useState** and props to manage form data and component visibility; enhancing user experience with seamless navigation and animations.
  - **Version Control Preview Deployment:** Collaborating via **GitHub** for version control; deploying test builds to ensure smooth performance.

PROJECTS

- **smart trolley system** *may 2025*

  - The Smart Trolley System is an IoT-based solution that uses RFID tags, Arduino microcontroller, and wireless modules (ESP8266) to automate product billing inside supermarkets. As items are placed into the trolley, RFID readers detect them and display the total cost in real-time on an LCD screen. A buzzer alerts for unauthorized removal of items, ensuring billing accuracy. The system reduces queue time and enhances shopping efficiency through real-time wireless data transfer.

- **smart bridge system** *feb*

  - The Smart Bridge IoT Implementation project involves using sensors and microcontrollers to monitor bridge health parameters such as structural vibrations and load. Data is transmitted to a central system for real-time analysis, ensuring timely maintenance and safety.

- **snake gamer** *currently*

  - A Snake Game project in DSA involves using data structures like linked lists or arrays to represent the snake's body, and algorithms to handle movement, collision detection, and game logic. This project helps in understanding dynamic memory allocation, real-time updates, and event handling.

SKILLS

- **Programming**: C,JAVA,MYSQL
- **tools**: git,github,VS code,MS office
- **frontend**: HTML,CSS,JAVASCRIPT,REACT

CERTIFICATIONS

- **code chef**: Linked list
- **Infosys Springboard**: Data Structures And Algorithm Using Java
- **programming language**: C programming in Prince Infotech
- **Spoken Tutorial**: C,JAVA,HTML in IIT Bombay
- **Prepinsta**: SQL
- **NPTEL**: python for data science

Workshop

- **Data Structure And Algorithm**, It covers fundamental concepts such as arrays, linked lists, trees, and sorting algorithms.
  - It aims to enhance problem-solving skills and prepare students for technical interviews and competitive programming.

Programming Platforms

- **Skill Rack**, 600+ programs solved
- **Leetcode**, Solved 50+ problems
- **code chef** , solved 80+ problems