

BHUVAN CHANDRA

B.Tech From Indian Institute Of Technology, Madras

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Work Experience

Bert Labs Pvt Limited

June 2023 - August 2024

Full Stack Developer

Bengaluru, India

AI and IoT Integrated Microservices for Optimization.

- Developed microservices using Python and NestJS to manage high-volume IoT data and perform real-time predictions using reinforcement learning models for optimizing plant operations.
- Optimized Cassandra databases for efficient storage and retrieval of IoT data, ensuring smooth data handling for predictive analytics and automation.
- Established seamless communication between microservices using NATS and MQTT Servers, enabling real-time data transmission for IoT device control and command execution.

Real time monitoring dashboards.

- Developed interactive **Angular** dashboards for monitoring real-time insights from plant operations.
- Integrated the microservices with the dashboards using **Flask Rest APIs** to showcase the predicted and optimized values which can be used to display **energy savings**.

Company Website Development.

- Developed a highly responsive and visually appealing company website from scratch using **React.js, Next.js**, ensuring an optimal user experience across different screen sizes with ChakraUI.
- Built an admin portal for seamless job postings and resource management, utilizing **Node.js, Express**, and **MongoDB** for secure data handling.
- Integrated real-time features to improve user engagement and ensure the platform is scalable, secure, and maintainable with cutting-edge technologies.

Dr. Reddy's Laboratories

May 2022 - July 2022

Research Intern

Visakhapatnam, India

Process Optimization & Cost Analysis

- Identified **cost-saving** opportunities by **optimizing time-crisis** issues caused by design flaws of the equipment, leading to significant efficiency improvements.
- Analysed key performance metrics including total time, labor requirements, machinery usage, and delay causes.
- Performed comprehensive analysis on capacity enhancement, yield improvement, and solvent recovery techniques at an industrial scale, providing actionable insights for **process optimization**.

Technical Skills and Courses

Programming Languages: C++, Python, C, JavaScript, Typescript, HTML, CSS

Libraries & Frameworks: Next.js, React.js, Node.js, Angular, NestJS, Redux, MUI, Flask, Django

Databases & Tools: MongoDB, MySQL, Cassandra, Git, Tailwind CSS, Docker

Courses: Data Structures and Algorithms, Object Oriented Programming, Probability and Statistics

Projects

Searching and Sorting Algorithms Visualizer | *Python, Tkinter, Algorithms*

- Visualizer for searching and sorting algorithms implemented in Python with UI created using **Tkinter** GUI toolkit
- Implemented Binary Search, Ternary Search, Bubble Sort, Quick Sort, Merge Sort, Heap Sort and Selection Sort
- Made the project interactive by allowing user input for Visualization Speed, Array Size, and value to search

Mapsmap API | *Node JS, Express JS, MongoDB, JWT*

- Crowdsourced and crowdfund collaboration on maps of problems – **Hackathon project** in team of 8
- Built the backend APIs, structured the database, and documented it in a team of 2

Social Media App | *Node JS, Express JS, MongoDB, React JS*

- Clone of Social media app to add posts and give comments and likes on it, with chat server on web sockets
- Major project created in 3 months with the help of many sources to get started with development

Education

Indian Institute of Technology, Madras

June 2019 - May 2023

Bachelor of Technology in Chemical Engineering (CGPA of 7.71)

Chennai, Tamil Nadu