

Ritika Patel

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EDUCATION

Institute of Engineering and Technology, Lucknow

2019 - 2023

Bachelor of Technology in Electronics and Communication Engineering (CGPA-8.1)

EXPERIENCE

Software Engineer

Aug 2023 - Present

Visteon Corporation

- Developed automated tests in **Python** test scripts to verify various scenarios and ensure software quality and accuracy for different Nissan's cockpit variants, leading to a 20% increase in test coverage.
- Debugged and resolved multiple issues including gauge flickering, animation errors, SID mismatches, and energy flow overlaps, improving system reliability by 20% and enhancing automotive HMI stability.
- Implemented 2D and 3D rendering techniques in **Godot** and **C++** including managing sprites, UI elements and effective memory management, as well as advanced 3D car modeling with dynamic textures, lighting, and shader effects.
- Tech Stack:** C, C++, C#, Python, Linux, Testplicity, Godot, GDT, RenderCore, Git, Gitlab

Software Development Engineer (SDE) Intern

Feb 2022 - May 2022

The Sparks Foundation

- Created a simple **donation website** that accepts payments from users to raise funds online for medical emergencies and social causes, along with several other pages helping visitors to know more about the website. [View](#)
- Built 5 optimized landing pages and increase mobile responsiveness by 30% with the help of **CSS media queries**.
- Created accessible, **responsive**, and functional **UI** to allow visitors on any device to have the same perfect user experience.
- Tech Stack:** HTML, CSS, JavaScript

PROJECTS

E-Commerce Platform

March 2023 - Jul 2023

- Developed a full-stack e-commerce application enabling users to browse, purchase, and manage orders using **ReactJS**, **NodeJS**, **ExpressJS**, and **MongoDB**, integrating **Redux** for state management and **REST APIs** for seamless data flow.
- Implemented an admin panel for inventory management and order tracking, improving product management efficiency by 30%.
- Enhanced payment security and user experience through a robust **MVC** architecture and payment gateway integration.
- Tech Stack:** ReactJS, NodeJS, ExpressJS, MongoDB, Redux, Nodemailer, Mongoose

Travel Advisor App

Jun 2022 - Jul 2022

- Built and deployed an advanced Application that searches places, and fetches restaurants, hotels, and attractions based on location using **HTML5**, **CSS3**, **JavaScript**, **ReactJS**, **React Hooks**, **React Refs**, Material UI, and Axios. [View](#)
- Created a responsive User Interface using **Material UI** that increases technical feasibility and optimum functioning of design features by 17% and made API requests from **RapidAPI** and **Google Maps API** using **Axios**.
- Tech Stack:** HTML5, CSS3, JavaScript, ReactJS, Material UI, Axios

OTP Login System

Mar 2022 - Apr 2022

- Built an **OTP verification** for **2-way authentication**, this enables the admin to authenticate selected users/user roles by sending OTP login codes to their entered email ids. [View](#)
- Defined routes to send OTP using **express**, constructed static and template files using **express-handlebars**, and allowed the admin to send email from their provided email address to entered email address using **nodemailer**.
- Tech Stack:** Node.js, Express.js, Nodemailer, Express-handlebars

Nirikshak Bot (e-Yantra, IIT Bombay 2020)

Sep 2020 - Mar 2021

- Designed a Ball Balance Platform with mazes on top and find the **shortest path** to navigate balls through the maze. [View](#)
- Measured the quality of the platform manufactured through **ball traversal** within a stipulated amount of time with 80% of efficiency.
- Tech Stack:** Lua, Python, Image Processing (OpenCV), Control System (PID)
- Simulator used:** CoppeliaSim

ACHIEVEMENTS

- Achieved **top team performance** out of 200 participants in a **C++ Hackathon** at Visteon Corporation.
- Global rank 142** in **Codechef Starters 13** among 10000+ participants.
- Global rank 4194** in **Google Kick Start 2022 Round D** among 10000+ participants.
- Solved 1000+** problems on **DSA** [Leetcode](#) [Codechef](#) [Codeforces](#) [GeeksforGeeks](#).

SKILLS

- Languages:** C, C++, Python, HTML, CSS, JavaScript, SQL
- IT Constructs:** Data Structures and Algorithms, OOPs, DBMS, Operating System(Windows/Linux), Computer Networks
- Technologies/Frameworks:** Node.js, Express.js, ReactJS, MySQL, MongoDB, Testplicity, Godot, RenderCore, Git