

Inder Singh

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 [LinkedIn](#) |  [Github](#)

EDUCATION

• National Institute of Technology Delhi

Electronics and Communication Engineering

◦ CGPA: 7.91

August 2019 - May 2023

Delhi, India

• Sri Guru Gobind Singh Collegiate Public School

High School

◦ Percentage: 92%

May 2017 - May 2019

Chandigarh, India

SKILLS

- **Programming Languages:** C/C++, Python, JavaScript, SQL
- **Embedded systems and Linux:** Embedded C/C++, Linux device drivers, Multi-threading, Operating system
- **Web Technologies:** HTML, CSS, React.js, Express.js, Node.js, Mongoose
- **Database Management:** DBMS, MySQL, MongoDB
- **Other Tools & Technologies:** Github, VS code, Jupyter Notebook

EXPERIENCE

• Samsung Research Institute Delhi

Engineer

September 2023 - Present

Delhi, India

Karaoke Audio Experience for Samsung TVs

- Redesigned the audio path to optimize latency for the karaoke feature, ensuring seamless integration of UHF and phone microphones
- Achieved a latency reduction from 300 ms to 60 ms for the phone's Bluetooth microphone
- Reduced latency from 250 ms to 60 ms for the UHF microphone interfaced via USB

• Samsung Data Systems

Developer

March 2023 - June 2023

Remote

- Built a responsive registration page and an interactive quiz application using React.js during internship training, showcasing proficiency in front-end development and user-centric design
- Earned an Advanced Certification in Data Structures and Algorithms from Samsung with a score of 100, demonstrating expertise in foundational principles and practical applications

ACADEMIC PROJECTS

• VLC media player control using hand gesture recognition

Jupyter Notebook, Python, OpenCV

- Developed a Python application using OpenCV and MediaPipe for real-time hand gesture recognition, enabling control of media playback functions such as play, pause, and volume adjustment
- Constructed a pre-trained machine learning model using scikit-learn achieving an accuracy of 98.23% in gesture recognition and designed an intuitive GUI with Tkinter for user interaction
- Optimized real-time performance by leveraging multithreading in Python, ensuring smooth gesture detection and media control without latency

• YELPCAMP | [LINK](#)

HTML, CSS, JavaScript, Express.js, Node.js, MongoDB

- Designed an open-source website for sharing and reviewing campgrounds with full CRUD functionality
- Mapped campground locations on the homepage using the MapTiler API
- Integrated Node.js with MongoDB via Mongoose for efficient data management
- Implemented user authentication and authorization using Passport.js to ensure secure access control and personalized user experiences

HONORS AND AWARDS

• Spot Award

- Optimizing the latency for the karaoke feature, latency reduction for the phone's Bluetooth microphone and for the UHF microphone interfaced via USB