# Muskan Kumari

### Education

• B.Tech Electronics & Communication Engineering (2019-2023) Chandigarh Engineering College, Mohali, Punjab

## Work Experience

• Indian School of Robotics, Chandigarh

July 2023 - Present

Marks: 88.6

STEM and Robotics Educator

- Conducted projects involving microcontrollers (Arduino Uno).
- Worked with sensors & drivers.
- Worked with microbits and created projetcs.

# **Projects**

- 1. Power Generation from Footsteps
  - Used microcontroller AT89S52, CSI IDE from Keil Compiler.
  - Converted footsteps into electric current without conventional energy sources.
  - It can be combined with a home treadmill so that you can monitor the intensity of your workout by the glowing LED.
- 2. Image Captioning Deep Learning Project

Source code

- Utilized models like ResNet50 and Long Short-Term Memory.
- Backend implemented with Flask.
- 3. Double Acting Compressor-Based Oxygen Concentrator Patent

Developed to store ample compressed oxygen, aiding hospitals during emergencies.

4. Robo Car Singing National Anthem and Moving

#### Skills

 $\bullet$ Python  $\bullet$  Arduino Uno  $\bullet$  C++  $\bullet$  Micro-bit  $\bullet$  HTML  $\bullet$  Django  $\bullet$  Embedded C

### Achievements

- Contributed to a promising project during SIH (Smart India Hackathon).
- Third prize in inter-college debate competition & presentation on stubble burning.
- Published research paper on exploring power drives for industrial applications.
- Data Science: Machine learning from ThinkNext Technologies, Mohali, Punjab.
- Participated in ideathon for carbon neutrality movement.

#### Hobbies

• Origami folding. • Playing badminton. • Stargazing and constellations. • Blogging on Medium.