



# Dhruva Shaw

A discord.py bot developer and a budding Robotics and Automation Engineer from LPU

+91 62922 11794 • @ dhruvashaw@gmail.com •

https://dhruvashaw.in

## Summary

By passion a discord.py bot developer and a full stack web developer using python. Pursuing Robotics Engineering, I also develop electronics and software projects. All developments are based on my self research and reading materials available on various platforms. My codes are open sourced, head over to my github and see more!

## Education

**Lovely Professional University**  
Robotics and Automation

**Aug 2021 - Sept 2025**  
Bachelor of Technology

## Certifications

**Drone Hands-on-Training**  
Chitkara University, Chandigarh in coordination with Indian Institute of Technology Bombay  
12th - 16th Sept, 2022

**Oracle Database 11g: Advanced PL/SQL**  
Central Tool Room & Training Centre (MSME) Government of India  
25th June - 10th July, 2020

**Autonomous and Mobile Robotics**  
Robosapiens Technologies Pvt. Ltd.  
21st - 22nd Dec, 2019

**Industrial Automation (PLC Programming)**  
Central Tool Room & Training Centre (MSME) Government of India  
12th June - 11th July, 2023

## Experience

**IEEE YESIST12** Jan 2024 - Present  
Student Ambassador

**IEEEXtreme** May, 23 - Dec, 23  
Student Ambassador

**Techfest, IIT Bombay** June, 23 - Dec, 23  
Campus Ambassador

**Tanzanite LPU** Sept, 21 - Dec, 21  
Assistant Head of Technical Department

## Profiles

Dhruvacube

dhruva-shaw

98374128

0009-0009-6399-8756

## Volunteering

**National Cadet Corps**  
Cadet  
01 Sept 21 - 03 March 2024

## Microcontroller Boards Used

---

Arduino UNO



ESP32



Arduino LillyPad



Arduino Nano



Raspberry Pi  
Zero 2W



8051



LPC1768



STM32F103C8



T6



Jetson Nano



AVR ATMEGA8



## Patents Filed

---

**Mind controlled bionic hand with sense of touch**

filed through the university, it is yet to be granted

**Food Waste Management System**

filed through the university, it is yet to be granted

## Additional Achievements/Accomplishments

---

**Participating member of IEEE SA - P3120 working group** 01 Sept, 23 - Present

This standard defines technical architectures for a quantum computers based on the technological type (e.g., fault-tolerant universal quantum computing) and one or more qubit modalities (e.g., superconducting quantum processor).

**Voting Member of IEEE SA - P62659 Working group** 01 Sept, 23 - Present

This International Standard provides a framework for introducing nanoelectronics into large scale, high volume production in semiconductor manufacturing facilities through the incorporation of nanomaterials (e.g. carbon nanotubes, graphene, quantum dots, etc.)

**Member of Center of Space Research - LPU, Jalandhar**

A full time working member of Center of Space Research LPU, currently we are building a cubesat which is to be launched in atmosphere by Indian Space Research Organization. The project is fully funded by university itself.

## Conferences / Conclaves Attended

---

**Poster Presentation at 5th International Conference on Intelligent Circuits and Systems (ICICS-2023)** 12 Oct,23 - 13 Oct, 2023  
Lovely Professional University

**Delegate at 2nd Indian Space Conclave jointly organised by ISRO & ISpA** 09 Oct, 23 - 11 Oct, 2023  
ISpA - Indian Space Association  
Manekshaw Centre, New Delhi

**Delegate at First International Quantum Communication Conclave** 27 March, 23 - 28 March, 2023  
Vigyan Bhawan, New Delhi  
Department of Telecommunications ,  
Government of India (GOI)

## Research Paper

---

**Mind Controlled Bionic Hand** 12th October 2023  
Lovely Professional University  
<http://dx.doi.org/10.13140/RG.2.2.11164.46724>  
Poster Presentation

## Upcoming Conference to Attend

---

**109th Indian Science Congress** India  
Oral presentation under the topic "Mind Controlled Bionic Arm with Sense of Touch"

## Programming Languages Known

---

### Python

Goto language for all projects



### MATLAB



### Embedded C



### C++



### JavaScript



### GoLang



### Micropython



### C



### Ladder



### PHP



### Java



### Assembly



## Hardware Projects

---

### Osteoporosis ML Model

This AI/ML is being developed under the guidance of Dr. Bhaveshkumar C Dharmani, with an understanding and MoU signed between LPU, Jalandhar, Punjab and AIIMA, Bhatinda, Punjab. This AI/ML model aims to have an early detection of Osteoporosis, aiding in the prevention of the disease at an early stage. This project uses an enriched database of images of the disease of the Indian Population suffering from the disease because the body structure varies from region to region across the country. On completion of the model development, it would be deployed for further testing and deployment by using Jetson Nano to integrate with the X-Ray hardware. Curing time for the patient likely to be reduced and a better patient care can be provided.

### Micromouse - (Micropython)

The maze traversal algorithm used is A\* with the combination of the Flood Fill Algorithm with a modified heuristic using micropython language. (For Techfest 2023-24)

### Line Following Robot with PID

LFR which auto sets its PID value using the Zig Nicholas Method (ongoing). Proteus has been used to simulate the circuit and Easy EDA has been used to design the PCB. This robot is made specifically for the Techfest at Indian Institute of Technology Bombay

## Software Projects

---

### Shaw Durga Puja

<https://shawdurgapuja.herokuapp.com>

Durga Puja with traditional rituals have been always celebrated since 2001. Still photographs were kept as recorded documentary and memory. Technology advancement helped in facilitating live video calls for the distant relatives and friends. However to automate and do away with a requirement of man-power to facilitate the live-video calls, a website with still-photo documentation and live-streaming capabilities was developed and hosted on Heroku. This enabled easy and 24x7 availability of the festival celebration

### Minato Namikaze

A multipurpose discord server serving almost all of the server needs from administration to fun/gaming, etc. The bot can be described in one line - "Konichiwa 🙌 , myself Minato Namikaze, Konohagakure Yondaime Hokage. I do every work of a Hokage in a swift and clean way ⚡"