# Maharshi Shastri

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## CAREER OBJECTIVE

I intend to gain a Master's and Doctor in the field of Quantum Technology. I also inted to become an entrepreneur in this field along with defense and infrastructure technology. With the power of quantum technology, I believe we can fast-forward the human knowledge and race.

## WORK EXPERIENCE

**Hardware Engineering • Internship** Jul 2024
SHREE L.R. TIWARI COLLEGE OF ENGINEERING, Mira Bhayandar
In VLSI designing internship, I learned how to create various hardware components. We also verified our designs via

## EDUCATION

**Bachelor of Engineering (B.E), Computer Science & Engineering With Honours In Artificial Intelliigence/Machine Learning** 2022 - 2026
University of Mumbai

**Senior Secondary (XII), CAMBRIDGE INTERNATIONAL AS&A LEVEL** 2022
RBK International School
Percentage: 76.67%

## TRAININGS / CERTIFICATIONS

**Digital Signal Processing**
Jun 2024
IIT-B, Mumbai
I learned about creating and simulating circuits on Intel Quartus and verifying the correctness of circuit with Krypton board and scan chain method

**Game Developer Via Cloud Computing**
Feb 2024
Amazon Web Services, Virtual

**Postman API Fundamental Student Expert**
Feb 2024
Postman API, Mira Bhayandar

**NLP,ChatGPT And Prompt Engineering**
Dec 2023 - Jan 2024
ExcelR, Virtual

**Cloud Computing**
Dec 2023
ExcelR, Virtual
I learned various cloud resources offered by Amazon Web Services and am capable to be a beginner level of DevOps

## PORTFOLIO

GitHub link ↗

CodeChef link ↗

## PROJECTS

### Automation-Systems ↗
Dec 2024

I created two Python scripts. The first script will extract data from a public website, handling multiple pages, errors, and storing the data in a structured format like CSV or JSON. The second script will use a sales dataset to calculate KPIs such as yearly revenue per category, visualize these metrics with plots, and output a dashboard in PDF or HTML format. Additionally, I'll automate the dashboard script to run periodically using a scheduling tool. Both scripts must include proper documentation, comments, and adhere to efficient coding standards.

### Chess game via python
Aug 2023 - Apr 2024

I have created a chess engine using Python that allows me to play chess against the computer or other players. The engine employs various algorithms such as minimax and alpha-beta pruning to make strategic moves during the game. I have also added a login page to the chess engine, which allows me to access the game and keep track of my progress. The login page features user authentication, account creation, and password recovery to ensure a secure gaming experience. One of my favorite features of the chess engine is the game history, where I can review past games I have played. This feature displays details such as the date and time of the game, the players involved, and the outcome of the game. It's a great way for me to analyze my gameplay and learn from my mistakes. Overall, my Python chess engine provides me with a platform to enjoy playing chess, improve my skills, and track my progress through the login page and game history feature. It's a fun and interactive way for me to ch

### Drone Delivery System ↗
Aug 2024 - Present

My drone delivery system utilizes a camera to detect whether an object is present in the path of flight. Path of Flight is determined by Haversine algorithm, rather than Dijkstra's Algorithm. The reason is that Dijsktra's algorithm is used in a connected graph(basically road networks), whereas drones do not need to follow such path, it just needs to travel from warehouse to user's specified location(Latitude and Longitude). The biggest drawback of drone delivery, especially in high-rise buildings is that they are unable to uniquely identify the flat of the reciever. To overcome this problem, I created my own color code, that is associated with the customer's ID. So, all that client has to do is print and stick their color code in a public area. Upon detecting the customer's color code, it will alert the user that it has arrived. Finally, using the camera, we will run a face-detection program to ensure that the reciever is the intended user or not.

### Movie Recommendation System ↗
Dec 2024

I developed a personalized movie recommendation system in C++ using collaborative filtering. The system predicted user ratings for unrated movies based on similarities between users and generated a ranked list of recommended movies for a given user. It involved loading a user-movie ratings matrix from a CSV file, calculating user similarities, predicting ratings, and recommending top movies. The program was modular, well-documented, and tested with a sample dataset. Outputs included predicted ratings, ranked recommendations, and performance metrics like RMSE.

### Facial Recognition System ↗
Apr 2024

I developed a facial recognition system using Python, MySQL, OpenCV, and a camera. The system captured faces through the camera, detected individuals, and matched them against a database. If a face was recognized, the system identified the individual; otherwise, it displayed "Unrecognized" under a box surrounding the detected face. The implementation integrated a database for storing user data and utilized OpenCV for face detection and recognition, ensuring accurate identification. The program was designed for real-time performance and provided clear outputs for recognized and unrecognized individuals.

### Sports robot(Neuroevolution) ↗
Dec 2024 - Present

Modern day Artificial Intelligence/Machine Learning research has led us to generation of various chatbots, that can convert user's input to text, image, video, PowerPoint Presentation and so on. However, we have merely scrapped the potential of such intelligence. As we head towards making a General AI, which is said to be able to perform all the human tasks by itself, we still lag behind on one of the most important features of General AI- to learn by itself. To overcome this problem I, Maharshi Shastri, Technical Head in Student Council of Shree L.R. Tiwari College of Engineering merged my committee with R&D cell to solve this problem. Upon research, we believe that combining Neuroevolution with Reinforcement Learning, we can help the robot to create diffrent strategies(Neuroevolution) and find the best strategy for the projected motion(Reinforcement Learning). Provided link is an open-source code developed by our committee, which aims to develop General AI.

## SKILLS

- Python
- C++ Programming
- C Programming
- SQL
- REST API
- Amazon Web Services (AWS)
- Computer Vision
- VHDL
- English Proficiency (Spoken)
- German Proficiency (Spoken)
- Embedded Systems
- Internet of Things (IoT)
- Artificial Intelligence
- Machine Learning

## EXTRA CURRICULAR ACTIVITIES

- Technical Head of Shree L.R. Tiwari College of Engineering for academic year 2024-2025

- Current Technical Lead of SLRCTE Artificial Intelligence and Machine Learning club of club

## ADDITIONAL DETAILS

- Secured an Award of Excellence from Members of International School's Association for securing 3rd topper position at my A-Levels during the Academic Year 2021-22