Toshan Luktuke

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EDUCATION

Veermata Jijabai Technological Institute, (CGPA - 9.08)   Matunga, Mumbai
Bachelor of Technology in Computer Engineering   *February 2021 – Present*

Hiranandani Foundation School   Thane, Maharashtra
ISC - 94.6% | ICSE - 96.7%   *July. 2018 – April 2020*

COMPETITIONS

E-Yantra Robotics Competition - IIT Bombay ⬈ | *Elixir, PhoenixWebFramework, LiveView Oct 2021 – Present*
- Implemented obstacle avoidance and navigation in a grid for a robot using **Elixir** and navigation algorithms like **A***.
- Used Phoenix Web framework to establish communication between client and server using **Websockets** and **PubSub**.
- Created a **Liveview** of the robot's arena to show its movement on a webpage. Used **ngrok** to make the page accessible over the internet.

PROJECTS

Drone Design and Simulation in Gazebo ⬈ | *Python, ROS, Gazebo, Solidworks*   *Aug 2021 – Oct 2021*
- Designed a drone in **Solidworks**.
- Simulated it using **ROS** and **Gazebo**.
- Implemented automated stabilising and navigation using **PID** and plugins.

Stock Market Analyser ⬈ | *React, Javascript, Express, Python, Flask*   *Nov 2021 – Present*
- Developed a Web-App using **React** to display stock information in a clean and modular manner. Developed frontend using **Tailwind-CSS**.
- Developed a simple **LSTM** model in Python to predict stock prices. Built an API for integration into the frontend using **Flask**.

MARIO Webserver ⬈ | *C, ESP-IDF, CMake, HTTP*   *Aug 2021 - Sep 2021*
- Implemented an **Inverse Kinematics Controller** on a Webserver using JS and HTTP Request for a 3 DOF Robotic Arm.
- Tested it using an **ESP-32** controller on the actual hardware model

TECHNICAL SKILLS

Languages   : Java, Python, C/C++, JavaScript, HTML/CSS, Elixir
Frameworks   : React, ROS, Gazebo, PhoenixWebFramework, Processing
Developer Tools: Git, Google Cloud Platform, AWS, VS Code, PyCharm
Libraries   : Pandas, NumPy, Matplotlib, Bootstrap, Tailwind, OpenCV

ACHIEVEMENTS/EXTRACURRICULARS

- Winner **1st** prize in **code start** and **Algocon**, coding competitions for FYs in VJTI.
- Participated in over 7 Model United Nations and won prizes in 6 of them including **Best Delegate** at **IIT-Bombay's Techfest MUN**. Participated in Frank Anthony Memorial Debate, Cascade National Debate and COEP's Visvesvaraya Memorial Debate
- Winner of Rotary Quiz Competition for Thane and 2nd Runner Up in All Mumbai Rotary Quiz Competition.

CLUBS

Society of Robotics and Automation - VJTI
- Active member, attended workshops on **OpenCV, Image Processing, 3 DOF Robotic** as well as Eklavya Mentorship programme.