

## EDUCATION

Ramaiah University of Applied Sciences - Bengaluru, India <b>Undergraduate in Aerospace Engineering</b>	<b>2020 - 2023</b>
Vidyalankar Polytechnic - Mumbai, India <b>Diploma in Electronics and Telecommunication Engineering</b>	<b>2017 - 2020</b>

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## EXPERIENCE

### Project - Numerical Study of the Hysteresis Phenomenon related to Unstart/Restart in Scramjet Engines

January 2023 - May 2023

- Created a dynamic mesh of a scramjet inlet to simulate the ICR (internal compression ratio) change between 1.3 and 2.1 in the throat region of the engine using a UDF in Ansys FLUENT.
- Successfully simulated the unstart/restart process in the engine at Mach 3 speeds and obtained the hysteresis loop around the unstart/restart process.
- Increased the understanding of how the hysteresis change with the ICR in scramjet engines, providing practical implications for the design of a supersonic aircraft.

### Project - Aerodynamic Optimization of a Multi-element airfoil

October 2022 - December 2022

- Performed an aerodynamic shape optimization of the 30P30N airfoil and the NACA 0012 airfoil using the adjoint method and the OPENFoam toolbox.
- Improved the Lift-to-Drag of 23.6% in the single-element airfoil and 7.6% in the multi-element airfoil.

### Aerathon 2021 - Design of a BWB UAV

March 2021 - April 2021

- Worked in a group of 8 people to design, analyze, and propose a Blended Wing Body (BWB) unmanned aerial vehicle (UAV) concept for civilian uses like transporting covid-19 essentials to remote areas
- Learned and used Ansys Fluent to perform CFD analysis on the aircraft

### Reliance Jio - Engineering Intern

May 2019 - June 2019

- Collaborated with other interns and senior engineers to configure Wi-Fi Access Points for the Jio Network in a 2-month long internship.

### Quadcopter Assembly and programming

February 2019

- Built and programmed a quadcopter controlled by an RC controller in 2 weeks.
- Achieved an altitude of 20 meters with an endurance of 20 minutes.

### Project - Banana maturity detection using Machine Learning

December 2019 - February 2021

- Programed and deployed a machine learning model on a Raspberry Pi for detecting level of ripeness on a banana using a Pi Camera with an accuracy of 92%. The model was trained with dataset of 365 images.
- First Prize - Final Year Project Exhibition at Vidyalankar Polytechnic, February 2020)

### Graphic Designer

2019 - Present

- Worked on more than 10 projects as a part time freelance graphic designer
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## SKILLS

**Simulation:** Ansys Fluent, Patran/Nastran FEA

**Programming Languages:** Python, C, MATLAB, Assembly

**CAD:** Ansys (SpaceClaim and Design Modeler)

**Languages:** English, Hindi, Urdu

**Software Skills:** Microsoft Office( Word, PowerPoint, Excel)

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