ROHIT GUPTA

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Portfolio:- **https://github.com/Rohit-Gupta2** | Sheffield, UK | Work Location:- Anywhere across U.K.

EDUCATION

MASTER OF SCIENCE AUTOMATION, CONTROL AND ROBOTICS — Sheffield, UK
Sheffield Hallam University — Jan-2023 - present
Key modules: - Artificial Intelligence, Advance Control, Systems on Chip, Robotics and Machine Vision

MASTER OF SCIENCE AEROSPACE AND ASTRONAUTICAL ENGINEERING — Forli, Italy
University of Bologna — Nov-2016 – Oct-2019
Key modules: - Automatic Flight Control, Flight Dynamics, CFD, Numerical Analysis, Design Methods in Aerospace, Radar systems, Aerospace Materials, Aerospace Propulsion systems, Structures and Aerodynamics

BACHELOR OF TECHNOLOGY AERONAUTICAL ENGINEERING — Hyderabad, India
Mahaveer Institute of Science and Technology (JNTU) — Sep-2011 – Jun-2015

TECHNICAL-SKILLS

CODING	FRAMEWORKS	AUTOMATION	CFD & CAD	CLOUD	TOOLS
Python	Pytorch	PLC Programming	Ansys	Microsoft Azure	Tableau
Matlab & Simulink	TensorFlow	SFC's	SolidWorks	Git Actions	Intel Quartus
Git	OpenCV	HMI Design	Simscale	Google Colab	Blender
System Verilog	Scikit-Learn	Siemens Tia Portal	XFLR	Docker	Adobe Illustrator
SQL	GEKKO	Pneumatics	Autodesk	VMWare	MS Office

PROJECTS AND ACADEMIC REASEARCH

- Autonomous Car Parking and Car Obstacle Avoidance using **Model Predictive Controller** in Python
- **2D Kalman Filter** Traffic Light Prediction and 1D Kalman Filter on a car
- Streamlit Webapp using Yolov8 model, **Semantic segmentation** on Images and Videos
- Implementation **of Fault Detection**, Diagnosis & **Isolation** on a system plant using Simulink
- **Multi-Class** Classification on Cleveland Heart disease dataset to predict the severity of heart disease
- Processing and Analyzing an Image, **Real-Time Tracking** of different Shapes, Color
- PLC Programming in TIA Portal, **HMI design** and **PID implementation** on Reactor Station
- Various Data science and Machine Learning Projects
- Design optimization for Low-Boom **Supersonic Aircraft**
- Altitude Airspeed **Autopilot** for Piper PA30 Aircraft and Stability Augmentation Systems
- **3D Printing** LEGO model on a FORTUS 250 3D printer
- CFD simulation on a NACA0012 Airfoil at different angle of attack and different **Turbulence models**
- Design and Analysis of **Electrical Trainer Aircraft**
- **Composite** Manufacturing of Propeller blades and Laminates
- Design optimization of **lattice Structures** in Additive Manufacturing
- Turbulent flow and drag optimization for a blunt nose body configuration
- Link for all the Projects:- **https://github.com/Rohit-Gupta2**

EXPERIENCES

Freelancer | Additive Manufacturing Engineer — Feb-2021 - Jun-2021
Design and manufacture a prototype with **Minimum possible wall thickness** using any Additive manufacturing technique

CAE Engineer Intern| Simulation Lab – Product Development Center — Apr-2020 - Jun-2020
Simulations on a Contra-Rotating Propeller for Optimizing Thrust

CFD/FEA Trainee | Simscale | CFD & FEA Projects and workshops — Jan-2018 - Oct - 2018
Link for projects: - https://www.simscale.com/users/RohitGupta_2138/

Student Intern | University of Bologna - Hangar Laboratory, Forli Airport — Mar-2018 - May-2018
Conceptual design of **High-Altitude Long Endurance** Unmanned Aerial Vehicle

Administrative support at Language Center | University of Bologna, Forli, Italy — Jan-2018 – Mar-2018

Associate Account Receivable | Inventures Knowledge Solutions, Hyderabad India — Sep-2015 - Sep-2016
Verifying Clients Payments and maintaining customer records

Student Trainee | Bharath Dynamics Limited, Hyderabad India — Jul-2014 to Aug 2014
Manufacturing of Milan Missile component (Long Shell) performed on CNC Machine using G-code and M-code Programming language