SHREYAS RAVI

5, Old Road, Headington, Oxford :: ph.: +44-7459908321
r-shreyas@outlook.com :: linkedin.com/in/shreyas-r-484771104

Extremely Motivated International Student from India known to Excel in achieving the best results by showing determination and enthusiasm to obtain solutions to complex of problems

EDUCATION

M.SC. MOTORSPORT ENGINEERING, OXFORD BROOKES UNIVERSITY

SEPTEMBER 2019

- *Using ADAMs, Star CCM+, LS-DYNA, AVL VSM, and NI-Multisim as part of Vehicle Dynamics, Aerodynamics, Crash Impact Modelling, Lap Time Simulation and Electric Vehicles module*
- *Developing system to convert Formula student Electric Car to compete in the Autonomous mode as Master's thesis*
- *Developed MPC and Lateral Stanley Controller for OBR electric car for Autonomous running in 2021 as part of Master's Thesis*

B.TECH. AUTOMOBILE ENGINEERING, SRM UNIVERSITY

MAY 2018

- *Laying the foundation for engineering through modules involving Thermodynamics, Fluid dynamics, Vector Mechanics, etc to explore various automotive systems and gained theoretical and knowledge of Vehicle Dynamics, Vehicle Performance, IC and Electric Powertrain, Manufacturing and Industrial Processes, amongst many other*
- *Conducted Design, Analysis and Fabrication of Variable Length Intake Manifold with RAM effect for 4S- SI Engines as Bachelor's thesis*

EXPERIENCE

TEAM MEMBER (AI, EV & CV) OXFORD BROOKES RACING

09/2018 – PRESENT

- *Being a stand-in powertrain EV lead, managed a team of five people to design, Fabricate and make design reports for competition*
- *Designing and Optimizing Epicyclic Gear box and Cooling System for the Electric Vehicle while maintaining balance between course works and managing time*
- *Conceptualizing and carrying out the calculations for the Exhaust Manifold to reduce noise and improve performance using AQWT*
- *Developing a lateral controller for Autonomous car using Simulink and fulfill hardware requirements for testing of software*

TEAM LEADER, INFIEON SUPERMILEAGE

02/2017 – 04/2018

- *Managing a team of 26 People, the Team Won Its First Award Overseas for Technical Innovation at Shell Eco-Marathon Asia '18*
- *Introduced a variety of new Sub Teams to restructure the Team to improve productivity with the Limited Resources available, resulting in the team attaining best Indian team status and maintaining it till date with the same philosophy*

TEAM DRIVER AND POWERTRAIN LEAD, INFIEON SUPERMILEAGE

[04/2015] – [02/2017]

- *Working as the Combustion Powertrain Leader, developed A unique Rear Wheel Hub specific for the vehicle and proposed an Innovative Clutch Design in order to improve coasting distance and decrease friction*
- *Working with the electrical team to convert Carbureted Engine to Fuel Injected Engine, While Also Developing Ram Intake and Ceramic Coating for piston and cylinder to improve fuel efficiency*

ASSEMBLY LINE TRAINEE, FORD, CHENNAI, INDIA

JUNE 2016

- *Devising Test Methods for LHD & RHD Vehicles*
- *Improving Efficiency of International Shipping Bay*
- *Submitting detailed reports stating the suggestions and justifying them by providing relevant evidence*

SUMMER INTERN, TAFE, CHENNAI, INDIA

JUNE 2017

- *Studying Different Gear Production Methodologies*
- *Understanding the Gear Architecture of TAFE Gear cum Steering Casing*
- *Suggesting International Standards to be implemented and ways to implement them with the help of report*

UNIVERSITY INERN, VISTEON ELECTRONICS, INDIA

DECEMBER 2017- APRIL 2018

- *Worked on Analysis of Stress Development in Instrument Clusters using ANSYS Software for analysis*
- *Investigated NDT methods for testing of the Instrument Clusters*
- *Proposed improvements in manufacturing technique* by *collaborating with universities and other industry*

RESEARCH PROJECTS

ADAPTIVE QUARTER WAVELENGTH TUBE (AQWT)

- *Conceptualising and designing an AQWT based on inverse of RAM air Intake for OBR Formula student Team to reduce noise and improve performance at 25mps piston speed*
- *Reduction of 3-4 dB in noise level was noticed upon testing*

COOLING SYSTEM FOR EV

- *Conceptualised, designed and conducted thermal analysis using Solidworks for cooling system of the new EV vehicle of OBR Formula Student*

COVERSION OF OTTO CYCLE TO ATKISON CYCLE

- *Developed new CAM design for the conversion of traditional Otto cycle to more efficient Atkinson working cycle in a 110cc CVT operated engine*

STEAM ENGINE (MINI PROJECT)

- *Led a team of 5 to develop a turbine concept and made a working 1:28 working model of the same, which due to its small size could be operated by solar power*
- *The concept was awarded first prize for innovative thinking and excellent understanding of the concept displayed*

IMPROVEMENT OF EFFICIENCY OF A 4S-SI ENGINE

- *Proposed the roadmap for improving fuel efficiency and conducted feasibility study as minor project in a team of 3 people*

SKILLS

CATIA, SOLIDWORKS
- *Preliminary requirement for the use of ANSYS, Star CCM+ and many other software*

ANSYS FLUENT
- *FLUENT for Flow Analysis for RAM intake and Exhaust Design*

STAR CCM+
- *Analysed effect on downforce and lift of formula one front wing & nose under Yaw conditions*

LS-DYNA
- *Conducted IED Blast Simulation on the V-Hull Underbody*

MATLAB/Simulink
- *Developed a Lateral Stanley and MPC controller for Autonomous Formula Student team as Master's thesis*

ADAMS
- *Developed a detailed Bicycle model*

EcoCAL, EM-TUNE (*Engine Calibration Software*)
- *Engine Tuning for achieving maximum Fuel Efficiency*

AVL VSM; MoTec i2
- *Worked on improving powertrain system of the LMP1 Car to fit in to 2020 regulations*

NI MULTISIM
- *Designed Energy Storage System and Inverter-Motor System and simulated circuit diagrams in NI Multisim*

EXTRA CURRICULAR ACTIVITIES

- *Played Cricket at district level and won the prestigious Inter-school Competition twice*
- *Playing badminton and competitive go-karting*
- *Riding Motorcycle and working on modifying the looks of it (owning 3 motorcycle)*