

DESIGNER

SHREYAS NAGARAJ

I am a 24-year-old from Bangalore, India. Currently pursuing my Masters of Science in Engineering Design-1st Year. For me, design means being able to give shape to people's unexpressed ideas. Being Indian is a matter of pride and I like to think that one day I will be able to contribute to keeping the values of Made in India alive.

HOBBIES

Playing Chess, Football and Cricket

Reading Books, watching Science Fiction movies

Learning new languages

PORTFOLIO
2024

*INNOVATE
INVENT*



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State College, PA



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Education & Experiences.

Educational Path

Pennsylvania State University

Masters of Science - Engineering Design
GPA : 3.82/4

2023 - 2025

Dayananda Sagar College of Engineering

Bachelor of Engineering - Mechanical Engineering
GPA : 7.99/10

2017 - 2021

Collaborations & Experiences.



Aug 2023 - Present

Teaching Engineering design techniques with hands-on SolidWorks guidance



Aug 2017 - May 2021

Under-grad Researcher & student at the Mechanical dept.



Feb 2022 - Apr 2023

Product Designer for Bioprocess Vessels and Systems



July 2021 - Aug 2021

CAD Modelling of Drone Airfoil for VTOL Engine



TATA ADVANCED SYSTEMS

Mar 2021 - Apr 2021

Product Development Intern & Assistant for developing concept to prototype.



June 2019 - July 2019

Internship to gain insights on Gas Turbine Engines & Manufacturing Processes

Skills.

An overview of my capabilities

Soft Skills

- Creative
- Curious
- Adaptable
- Teamplayer
- Communicative
- Extrovert
- Conflict Resolution
- Time Manager
- Critical thinking
- Negotiation
- Work Ethic

Software & Tools



Autodesk Inventor



Autodesk Fusion 360



SolidWorks



Autodesk Plant 3D



Autodesk Revit



Ansys



Autodesk AutoCAD



Autodesk NavisWorks



Autodesk 3DS Max



Adobe Lightroom



Tableau



MS Office

Programming



Python



C/C++



MATLAB



R Studio

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The full system.

Bioreactors are designed to meet all process requirements for culture of mammalian cells for production of vaccines, biosimilars and other biopharmaceutical products.

In accordance with ASME Sec.VIII Div. 11 & ASME BPE & ASME Sec. IX

Designed for batch, fed batch and continuous mode of operation, system can be used as fully automated or semi-automated model.



Raptor.

THROUGH
THE EYES OF ANOTHER

This flying robot can be remotely controlled or flown autonomously using software-controlled flight plans in its embedded systems, that work in conjunction with onboard sensors and a global positioning system.

Working animation and analysis of the quadcopter was rendered

With this aerial vantage point I soar, the unseen, over the peaks and islands.

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FIRST
SOLO
FLIGHT

A FREEDOM
BEYOND
DREAMS



Gas turbine engine.

An internal-combustion engine employing a gas as the working fluid used to drive the turbine

This model considered the conceptual idea of replacing the reciprocating engines with a low emission, and high-performance gas turbine engine

A computer aided model and live animation of the parts of a turbine engine was made by referring to data from research papers and verified journals.



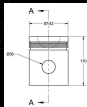
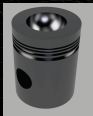
Engine study.

Impact of Split and Re-Entrant Type Piston Bowl Geometry Fuelled with Pre Heated Diesel and Biodiesel on a Compression Ignition Engine Characteristics

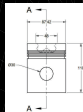
An investigation was carried out with biodiesel and and modifying Piston Bowl Geometry to assess the change in characteristics of the CI Engine.

The project results exhibited a drastic increase of 4% on engine working yield and a 3 % decrease in fuel consumption of and all emission characteristics for the Re-Entrant PBG.

Standard.



Re-Entrant.



Torroidal.

