

Shreyansh Singh

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EDUCATION

B.TECH(HONS.) | 7.59

(Mechanical Engineering)

LOVELY PROFESSIONAL
UNIVERSITY

Aug 2017 - Jul 2021 | Punjab, India

XII(ISC BOARD) | 88.50

(Science)

CITY MONTESSORI SCHOOL

Sep 2015 - Jun 2016 | Lucknow,
India

X(ICSE BOARD) | 77.50

CITY MONTESSORI SCHOOL

Sep 2006 - Jun 2009 | Lucknow,
India

INTERNSHIP

SUBJECT MATTER EXPERT

(Mechanical Engineering)

GRADE-UP ASSIGNMENT

Dec 2021 - May 2022 | Remote

MANUFACTURING TRAINEE

(Summer Training)

PRADEEP INDUSTRIES, PUNJAB

SMALL INDUSTRIES

CORPORATION

Jun 2018 - Aug 2018

SKILLS

COMPETENCIES

Dynamic Simulation

Mechanical Design

Design Integration

Failure Assessment

SOFTWARE

Engineering:

SolidWorks • Ansys • Fusion 360 •

Matlab • MSC Adams • MSC

Nastran • MSC Patran.

LANGUAGES

Hindi • Mother tongue

English • Fully Fluent

HOBBIES/INTERESTS

Cricket (5 years playing)

Motor-sports

Travelling

WORK EXPERIENCE

ORANGEWOOD LABS INC | YC(W18)

MECHANICAL DESIGN ENGINEER(R&D(MECHANICAL))

Feb 2024 – Nov 2024

- Designed and developed a 6-axis robotic structure, incorporating Design for Manufacturing and Assembly (DFMA) principles and conducting advanced modal frequency, harmonic response, and stiffness analyses. Achieved 100% compliance with performance metrics, improved structural stability by 75%, and established Standard Operating Procedures (SOPs) for quality inspection and testing to ensure production readiness.
- Redesigned a cycloidal gearbox, optimizing its geometry to reduce compliance by 50% and increase rigidity by 35%. This resulted in a 70% improvement in load-bearing capacity and precision for high-torque applications. Additionally, performed Design Failure Mode and Effects Analysis (DFMEA) to identify and mitigate potential risks, ensuring robust performance and manufacturability.

CAZO FOOD-TECH LLP (SOCH3D)

PRODUCT DESIGNER

Sep 2022 – Oct 2023

- Engineered and developed a chocolate 3D printer featuring a positive extrusion system with an actively controlled closed-feedback ball valve. Achieved a 95% reduction in material purge and enhanced extrusion precision by 70%, ensuring consistent high-quality output.
- Designed and engineered a high temperature 3D printer optimized for engineering materials, incorporating a controlled heated chamber that doubles as an annealing station. Improved material strength by 30% and reduced internal stresses by 25%, ensuring superior performance and reliability.
- Designed with a high-temperature, high-flow extrusion system to deliver exceptional print speed and printing precision.

PROJECTS

ADAPTABLE BEARING DEVICE (PATENT GRANTED)

APPLICATION NUMBER - 202111056906

Dec 2021 – Present | India

- The present disclosure generally related to the technical filed of variable geometry of bearing, and in specific relates to a ball-bearing design that supports shafts of different diameters.

INTELLIGENT SYSTEM FOR COOLING FLUIDS AND METHOD THEREOF(PATENT GRANTED)

APPLICATION NUMBER - 202111055783

Oct 2021 – Present | India

- The invention relates to a novel method for intelligent generation of chilled water systems comprising an integrated thermo-electric entity and actively controlled buffer/accumulator system.

COMPARATIVE STUDY AND ANALYSIS OF 3D PRINTED WHEEL HUB

[HTTPS://DOI.ORG/10.1108/WJE-11-2020-0563](https://doi.org/10.1108/WJE-11-2020-0563)

Feb 2021 – Present | India

- This study is supposed to do FEA of the wheel hub, manufactured using metal 3D printing, under static multi-load conditions and the Effect of infill pattern on maximum stress, deformation and factor of safety.