

Nitish Chauhan

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PROFESSIONAL SUMMARY

Experienced mechanical engineer with a strong background in CAD design, manufacturing, and thermal fluid sciences. Over 5 years of experience in product development, BOM management, rapid prototyping, and documentation.

EDUCATION

Florida Institute of Technology, Melbourne, FL

Master of Science in Mechanical Engineering, GPA 4.0 08/2021 – 07/2023

Bachelor of Science in Aerospace Engineering 08/2016 – 05/2020

SKILLS

SolidWorks, MATLAB, ANSYS, COMSOL, PTC CREO, AutoCAD, CAD, CNC, REVIT, Critical Thinking, Teamwork, Leadership, Microsoft Office.

WORK EXPERIENCE

Jaycon Systems, Melbourne, FL

11/2023 – Present

Mechanical Engineer Intern

- Utilized **SolidWorks** for detailed design drawings for **injection-molded parts**.
- Developed a **new product** to prevent algae formation in **HVAC systems**.
- Created **engineering drawings** and Bills of Material (**BOM**) for smooth production.
- Conducted rapid prototyping and testing for high-quality deliverables.
- Designed and **3D-printed** custom parts for silicone molds.

Florida Institute of Technology, Melbourne, FL

09/2020 - 09/2023

Researcher

- **Innovated cost-effective** washcoating methods for adsorbents on ceramic substrates, **reducing costs by 55%**.
- Conceptualized a model increasing **heat pump efficiency by 20%**.
- Developed a novel method for UV-cured, 3D-printed adsorbent coatings on custom substrates.
- Applied adsorbent coatings using 3D printers and UV curing.
- Developed a **semi-empirical model** to accurately determine viscosity for washcoatings application

Low Earth Orbit BioSciences LLC, Indian Harbor Beach, FL

04/2021 - 02/2022

Mechanical & Design Engineer Intern

- Designed scalable bioreactors using **CREO** and custom impellers, **enhancing efficiency by 30%**.
- Conducted **FEA analysis in ANSYS** for thermal and fluid dynamics in microgravity.
- Devised configurations **reducing mechanical load by 50%**, enhancing bioreactor durability and longevity.

Florida Institute of Technology, Melbourne, FL

Teaching Assistant

01/2022 - 12/2022

- Graded assignments and assisted students in Heat Transfer and Thermal System Design courses.

Damesh Stone Crusher, Rudrapur, India

05/2017 - 08/2017

Project Engineer Intern

- Evaluated work orders and prepared machine setups.
- Maintained equipment standards and trained team for inventory management.

SELECTED PUBLICATIONS/CONFERENCE

- [Synthesis and Characterization of MIL-101 \(Cr\) Adsorbent Coating on Microchannel Walls for Water Adsorption Heat Pumps](#)
- [In-situ fabrication of adsorbent-coated microchannels for building energy systems](#)