

Nitish Chauhan

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www.resoluteengineer.com

PROFILE SUMMARY

Researcher with a background in Aerospace Engineering and multiple completed projects seeking a professional position in Engineering (Aerospace, Aerodynamics, Mechanical, Project, Design, Manufacturing) where I can use my training, education, and experience to exceed client/company expectations of excellence. Skills in which I have proficiency or expertise include:

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|-------------------|--------------------------------|
| * MATLAB | * 3-D modeling -PTC Creo |
| * Lab View | * ANSYS FLUENT/Mechanical/HFSS |
| *Microsoft Office | * Solid Works/AutoCAD |
| * C++/Java/Python | * Machine Tools/CNC/Blueprints |

Portfolio: <https://www.resoluteengineer.com/>

PROFESSIONAL EXPERIENCE

Florida Institute of Technology – Melbourne, Florida

09/2020 – Present

Visiting Researcher

- Developing expert modeling and simulating designs for the direct air capture of carbon dioxide.
- Researching & designing a model for the high-performance microchannel adsorption heat pump.
- Programming a Graphical User Interface code to calculate higher number of Ordinary Differential Equations.
- Leading investigative research to find the alternative of silica gel to integrate in the heat pumps; Concluding findings in written reports.
- Researching and writing for publication on the asymmetric operation of heat pumps for instantaneous water heating technology.

PRACTICAL EXPERIENCE

Florida Institute of Technology – Melbourne, Florida

1/2019 – 5/2020

Propulsion Engineer (Student Design Project) for a Peregrine Jet UAV

- Designed and constructed an aircraft structure that can withstand load factors from -2 G's to 5 Gs.
- Designed 3D CAD models of the fuel tank to hold 7 liters of Jet A1 fuel to ensure the flight time of 7 minutes with a speed of 100 mph.
- Designed, constructed, and performed the necessary calculations for the aerodynamic controls.
- Incorporated and designed the fuel lines and supply connections of the fuel tank to the engine with safety procedures to align the avionics lines.

- Developed and designed the model for a Kevlar and fiber glass fuel tank with the safety procedures.
- Aided in the construction of the aluminum tank and designing of a test engine (CAD & construction) to test the Jet CAT engine at the max rpm settings.
- Completed the integration of fuel tank in the aircraft fuselage.

Damesh Stone Crushers – Rudrapur, India

5/2017 – 8/2017

Junior Project Engineer

- Examined & evaluated work orders to prepare for machine setup with the project engineer.
- Maintained high standards for safety, cleanliness, and preparedness of all equipment.
- Managed the cleanliness of the air breathers; verified that they met code standards.
- Directly managed & trained a small team to maintain security of costly inventory and supplies.
- Reported to managing supervisors on the status & accuracy of inventory and assigned work.

Aerospace Practicum (Project)

1/2017 – 5/2017

Aerodynamics Engineer

- Designed and built a glider to maximize flying distance and flight time.
- Performed and presented all the major and minor calculations (CG, lift, drag, flight time, flying distance).
- Engineered and incorporated the fuselage and the wing design.
- Designed and constructed the wings for the glider.
- Utilized advanced simulation software to test the glider’s aerodynamic (flight) capabilities

EDUCATION

Bachelor of Science in Aerospace Engineering | 2020

Florida Institute of Technology – Melbourne, FL

CERTIFICATIONS

Machine Shop Certification | 2019

PROFESSIONAL AFFILIATIONS

Order of Engineering | Member

VOLUNTEER/ COMMUNITY ENGAGEMENT

Club - Esteem (NGO)

Fall 2018

Marketing Editor (Volunteer)

- Designed a new layout for the club's pamphlet to increase awareness & participation.
- Primary and secondary research was done to accomplish the task.
- Researched, designed, and generated new logos and themes to make it look more presentable.

Green Himalayan Club

2016

Marketing Consultant (Volunteer)

- Distributed educational materials to communities regarding environmental issues and safety.

REFERENCES

Available Upon Request