

## EDUCATION

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- **Indian Institute Of Technology** Hyderabad, India  
*Bachelor of Technology, Mechanical Engineering ; GPA: 9.00* *July 2017 - July 2021*

## SKILLS SUMMARY

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- **Languages:** C++, MATLAB, Python, C, CUDA
  - **Frameworks:** TensorFlow, Keras
  - **Tools:** Ansys, Solid Edge, Solid Works, Abaqus, openfoam, Fusion 360

## EXPERIENCE

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- **Paninian India Pvt Ltd** Hyderabad, India  
*Computational Mechanics Engineer (Full-time)* *July 2021 - July 2022*
    - **Structural Analysis:** Fem analysis for Jet Engine Components using Ansys.
    - **Grid Generation:** C++ code to generate Body Fitted Grid for different AirFoil.
    - **LBM:** Developed LBM solver using Cuda and Validated with benchmark cases.
  - **Digital Fabrication** Hyderabad, India  
*Teaching Assistant* *July 2018 - Dec 2018*
    - **3D Printer:** Conducted Lab Sessions on designing 3D models Using Solid Edge. Conducted Sessions to students to get good understanding of 3D printer
    - **Tutorial:** Created tutorial Using different options in Solid Edge.
  - **IITH Racing** Hyderabad, India  
*Race Engineer (Unsprung)* *May 2018 - May 2019*
    - **Structural Analysis:** Fem analysis of Hub, Brake Disc and Brake Pedal is done using Abaqus
    - Design and Manufacturing of Unsprung components is performed with primary aim of weight reduction

## PROJECTS

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- **Thermal runaway in Lithium Ion Batteries:** Temporal distribution of the batteries temperature is obtained assuming Lumped mass analysis Considering heat generation from different exothermic reactions at different temperatures. Temperature within the cell is calculated Numerically and compared with the ANSYS Fluent
  - **Thermal Model of Voxels with Conduction, Radiation and Convection losses:** Temperature of Voxels is obtained using Goldak's heat Source model. Radiation and Convective heat losses are considered for each Voxel during first layer deposition to obtain Temperature of each Voxel using MATLAB
  - **Design Optimization of Compressor Disc using Machine Learning:** Created a ML based Reduced order model (ROM) using FEM static structural analysis data (using Ansys) for gas turbine compressor rotor disk. Optimal values of disk design parameters were found for minimal stress.
  - **Body Fitted Grid Generation:** Converted the physical domain into computational domain then generated the grid using Poisson equation (essentially mapping computational domain with physical domain) then solved all the parameters in computational domain then reverse mapping is done to extract all the values in physical domain.

## RELEVANT COURSES

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- Computational Fluid Dynamics, Advance Computational Fluid Dynamics, Finite Element Analysis, Thermodynamics, Python for everybody, Digital Fabrication, Machine Learning, TensorFlow, Solid C++

## HONORS AND AWARDS

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- Awarded A+ Grade for exceptional performance in CFD (Computational Fluid Dynamics), Modelling and Simulations, Power and Refrigeration system
  - Got opportunity to attend Virtual Classroom Training on ASME Y 14.5 Geometric Dimensioning and Tolerancing in Design thru Manufacturing 2.25 CEUs, 22.5 PDHs conducted by IMTMA Technology Centre because of my exceptional performance in company

## EXTRACURRICULAR ACTIVITIES

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- Participated in Inter IIT Cultural meet. (2018-2019)
  - CAD pro Event Organizer for Elan and nvision
  - Runner up in Inter year Volley ball
  - Loves to play Chess and Badminton
  - Got under 14 district first in Chess