Vansh Gupta

Bachelor of Technology
in Chemical Engineering
Indian Institute Of Technology, Ropar

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GitHub | Website
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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
Bachelor of Technology	Indian Institute of Technology, Ropar	8.27 (Till 4th Sem)	2021-2025
Senior Secondary	Central Board of Secondary Education	94%	2021
Secondary	Central Board of Secondary Education	96.8%	2019

EXPERIENCE

- **Chanakya Fellowship** *May 2023-present*
  Research intern Location
  - Innovative intern at Chanakya Fellowship, leveraging **data analysis**, **machine learning**, and **simulation expertise** to develop a cutting-edge **digital twin model** for predictive maintenance in pneumatic systems.
  - Honed my expertise in data analysis, machine learning, and simulation by actively engaging in the development of a digital twin model.
  - Enhanced my problem-solving abilities, particularly in optimizing system performance due to hands-on experience
  - Honed my **collaborative abilities** within a dynamic team environment.

PROJECTS

- **Developing Digital Twin model in Predictive Maintenance of Pneumatic Systems.** *May 2023-present*
  Dr. Jayaram Valluru, Collaboration with Mathworks **Github**
  - Developing a simulation model of a pneumatic system by parameterizing it for normal and faulty behaviors.
  - Generate **synthetic sensor data** by running simulations under different conditions.
  - **Tools & Technologies used:** MATLAB,ML(Autoencoders,LLM,LSTM,Neural Networks),Python,PyTorch

- **GalaxyGlimpse** *July 2023-present*
  Self **Github**
  - Designing and developing an engaging and informative website on space exploration using **HTML**, **CSS**, and **JavaScript**.
  - Tried to create a visually captivating user interface using HTML and CSS, incorporating space-themed graphics, minute intercative animationss and color schemes to enhance the overall aesthetic appeal.
  - **Tools & Technologies used:** HTML, CSS, Javascript, Bootstrap

- **Gesture Controlled Robocar** *Oct 2022 - Nov 2022*
  Dr. Sujata Pal **Github**
  - Collaborated as part of a 3-member team to design and develop a Gesture Controlled RoboCar.
  - Utilized a hand glove equipped with sensors to enable users to control the car's movement through hand gestures and accelerometer sensors.
  - **Tools & Technologies used:** TinkerCad, Arduino UNO, Sensors

SKILLS

- **Programming Languages**: C/C++, Python, Javascript
- **Markup Languages**: HTML, CSS
- **Frameworks/Tools/Libraries:** :PyTorch,MATLAB,Tinkercad,Photoshop,MS-Office
- **Soft Skills**: Collaboration & Team Work, Adaptability & Flexibilty, Problem Solving, Emotional Intelligence, Cultural Sensitivity and Diversity, Management,

KEY COURSES TAKEN

- **CSE & Web developement**: Introduction to Computing & Data Structures(GE103),Data Structure & Algorithm in C++(ongoing),MATLAB Onramp,MATLAB Simulink, Git & Github Master Course(2022)(ongoing), Discrete Math
- **AI/ML**: "Machine Learning" by Andrew Ng (Coursera)(ongoing)
- **Maths & Others**: Calculus, Linear Algebra, Differential Equations, Micro & Macro Economics

POSITIONS OF RESPONSIBILITY

- **Student Representative**,CDPC, IIT Ropar *Apr. 2022 - present*
- **Student Mentor**,ISMP, IIT Ropar *Apr. 2022 - present*

MISCELLANEOUS

- **National Astronomy Olympiad**,AIR 70 *2017*
- **JEE Advanced**,Ranked amongst top 1%ile amongst 1.4 million candidates *2021*