Gaurav Budhwani

Junior Undergraduate
Dual Major in Computer Science and Chemical Engineering
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ACADEMIC DETAILS

Degree	Specialization	Institute	Year	CPI/%
B.Tech. (Dual Major)	*Computer Science and Chemical Engineering*	IIT Gandhinagar	2022-Present	8.45
Class XII	*Physics, Chemistry, Maths*	All Saints School	2021-2022	94.2
Class X		All Saints School	2019-2020	93.8

PROJECTS

- **Quizz App** (Project Link) [May '24 - June '24]
  (Prof. Balgopal Komrath, IIT Gandhinagar)
  - Used to take quizzes as well as an attendance Web app.
  - Additional security features such as approval by the admin and anti-cheating were implemented along with user report generation.

- **Personal Portfolio Website** (Website Link) [May '24 - June '24]
  - Showcasing My work through this website.
  - A lot of animations using classes in CSS have been added.

- **Efficiency and effectiveness calculation of Helical Fins in a Double Heat Exchanger** (Project Link) [Jan '24 - May'24]
  (Prof. Biswajit Saha, IIT Gandhinagar)
  - Calculating heat transfer coefficient.
  - Comparison with simple double heat exchanger with the model.
  - Calculating Efficiency and Effectiveness of the fin.

- **Developing Games and Puzzles with C and C++ Using DSA** (Project Link) [Jan '24 - April '24]
  (Prof. Balgopal Komrath, IIT Gandhinagar)
  - Developed games like Connect4, Up-it-Up, Sudoku Solver, and 2x2x2 Rubik's Cube Solver using optimal move strategy between two player moves and graph traversal algorithms.

- **Increasing Efficiency of Rankine Cycle** (Project Link) [Oct '23 - Nov '23]
  (Prof. Atul Bhargav, Professor, Mechanical Engineering)
  - Improve power plant efficiency and steam quality by optimizing the Rankine cycle within specified pressure and temperature limits.
  - Adjust cycle parameters to achieve higher performance, with detailed analysis and graphical representation of efficiency and steam quality impacts. speakers in different cities of India.

- **Transient Thermal Analysis of a Car Brake System** (Project Link) [Sept '23 - Oct '23]
  (Prof. Dilip Srinivas Sundaram, IIT Gandhinagar)
  - Numerical simulation and visualisation of temperature distribution within a two - dimensional car brake system. This simulation aims to provide insights into how heat is distributed and dissipated within the brake's components while braking.

- **Analysis of Datasets using Probability, Machine Learning, and Statistics**(Project Link) [Jan '23 - April '23]
  (Prof. Shanmugathan Raman, IIT Gandhinagar)
  - Conducted analysis of AirBnb hosts' data and extracted valuable insights. Implemented detailed data cleaning procedures to ensure the accuracy and reliability of the dataset. Utilized statistical and graphical methods to explore the dataset, identifying patterns, trends, and key factors influencing host performance.

TECHNICAL SKILLS

- **Programming Languages:** Python, C, C++, MATLAB, HTML, CSS, JavaScript, Ansys Fluent, Flask, Sqllite.
- **Tools:** Autodesk Fusion 360, Autodesk Inventor, Laser Cutting, 3D Printing, Git, Arduino UNO, LATEX, Tableau.
- **Libraries:** NumPy, SciPy, Pandas, Plotly, Matplotlib, Seaborn, Scikit-Learn, OpenCV.

ACHIEVEMENTS

- Secured a grade of A+ (11/10) for outstanding performance in the course of Numerical Methods by successfully doing the project and simulation on "Transient Thermal Analysis of a Car Brake System."
- Felicitated with Dean's List Award IITGN for Semester II for excellent academic performance.
- Felicitated with Academic Excellence Scholarship, being the student with the highest CPI in the department of Chemical Engineering for AY 2023 - 2024.

POSITIONS OF RESPONSIBILITY

- **Design Executive, Amalthea'23, IIT Gandhinagar's Annual Technical Summit** [Jan '23 - Dec '23]
  - Created engaging social media designs for diverse platforms, utilizing Adobe Illustrator, Canva, and other graphic design software.
  - Developed visually appealing posters to enhance brand visibility and engagement across multiple social media channels.
  - Also contributed to the design department of Amalthea'22 by making posters, ID cards, and other necessary items required from the design department for the summit.