Mohan Krishna Medisetti
Department of Mechanical Engineering

Leetcode: MohanKrishna | GitHub: MohanKrishna
Email: mohank24@iitk.ac.in | Phone: +91-9618138520 | Linkedin: mkrishnam

ACADEMIC QUALIFICATIONS:

Year	Degree / Board	Institute	CPI/%
2024 – Present	M.Tech (Mechanical Engineering)	Indian Institute of Technology Kanpur	9/10
2014 – 2018	B.Tech (Mechanical Engineering)	G.V.P College of Engineering, Visakhapatnam	80.95%
2013	BIE AP (XII)	Narayana Junior College, Visakhapatnam	92.1%
2011	CBSE(X)	D.A.V Public School, Visakhapatnam	9.6/10

WORK EXPERIENCE:

Assistant System Engineer | TATA Consultancy Services | Kolkata   *(Jun'18 – Sep'19)*
- Designed and implemented Java-based modules, improving code efficiency and reliability in business-critical applications.
- Managed data acquisition and integration using SQL, including query optimization and database performance tuning.
- Coordinated directly with onsite clients for requirements gathering, troubleshooting, solution delivery and streamlining workflows.

RESEARCH EXPERIENCE:

Impingement of High Enthalpy Supersonic Jets | M.Tech Thesis   *(May'25 – Present)*
Supervisor: **Prof**. **Tushar Sikroria**, Dept. of Mechanical Engineering, IIT Kanpur
- Developed Computational Fluid Dynamics (CFD) models using **ANSYS ICEM-CFD** for geometry creation with high-quality meshing.
- Customized the **rhoCentralFoam** solver in OpenFOAM and validated compressible flow results against "**Large Eddy Simulations of a Supersonic jets using OpenFOAM"** by Rion Guang Yi You, Tze How New and Wai Lee Chan.
- Aim to conduct parametric analysis across varying pressure ratios, providing insights into flow behavior and temperature gradients.

KEY PROJECTS:

Employees and Students Database Analysis | SQL | Self Project | ⌂   *(Jun'25 – Aug'25)*
- Developed advanced SQL queries utilizing window functions (**ROW_NUMBER( ), RANK( ), DENSE_RANK( ), LEAD( ), LAG( )**) to analyze employee and student datasets for performance ranking and departmental insights.
- Applied **PARTITION BY, ORDER BY**, and **CASE WHEN** logic to implement row-wise comparisons, including swapping adjacent values and handling duplicates.
- Demonstrated the use of **CTEs**, schema creation, and writing efficient, scalable queries to solve real-world business problems with structured datasets.

Employee Hierarchy Analysis | SQL | Self Project | ⌂   *(Jun'25 – Aug'25)*
- Designed a self-referencing employee schema and implemented **recursive Common Table Expressions** to dynamically traverse hierarchical reporting structures.
- Utilized **SELF-JOINs, UNION**, and **aliasing** to identify all direct and indirect reports under a specific manager and generate full organizational hierarchies.
- Demonstrated **hierarchical data modeling**, **recursive logic in SQL**, and use of **DDL/DML statements** for schema creation and testing.

TECHNICAL SKILLS:

- **Software:** Ansys ICEM-CFD, MATLAB-Simulink, OpenFOAM, Ansys FLUENT
- **Programming**: Python, SQL, Java, Git

POSITION OF RESPONSIBILITY:

Teaching Assistant (ESO201- Thermodynamics):   *(Jul'25 – present)*
- Assisted the course instructor by managing proctoring, evaluations and academic support for 200+ students.

CERTIFICATIONS AND ACHIEVEMENTS:

- Completed Python Data Structures & Algorithms + LEETCODE Exercises, Udemy
- Completed MATLAB/SIMULINK Masterclass - From a Beginner to an Expert, Udemy
- Earned SQL50 badge in Leetcode
- Earned Leetcode75 badge in Leetcode
- Completed Core-Java course from Indo-German Institute of Advanced Technology

HOBBIES AND INTERESTS:

- Reading manga, manhwa, comics
- Playing PC games: role playing, hack and slash and single player
- Playing Volleyball, Table Tennis