



Thummala Siri chandana

BTech

Chemical Engineering

Indian Institute Of Technology, Tirupati

ch23b039@iittp.ac.in

Github

LinkedIn

EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. (CH)	Indian Institute of Technology, Tirupati	7.58	2023-2027
Senior Secondary	SSC Board	98.4%	2023
Secondary	CBSE Board	93.2%	2021

EXPERIENCE

- **Deloitte Virtual Internship**

Aug 2025

Data Analytics Intern

- Delivered insights in a Deloitte job simulation by analyzing complex datasets.
- Built an interactive Tableau dashboard that highlighted key business patterns, improving decision-making clarity.
- Utilized Excel for data classification and analysis, enabling actionable business conclusions from raw datasets.

PROJECTS

- **UHDE Ammonia Synthesis Process – Thermodynamic & Process Analysis**

Jul 2024 – May 2025

Applied Process Engineering, IIT Tirupati

- Solved material and energy balance inconsistencies across key units in the UHDE ammonia synthesis loop.
- Resolved non-ideal behavior at high pressure by computing fugacity coefficients and equilibrium constants for reacting species
- Validated industrial operating conditions through comparison of equilibrium predictions with process constraints

- **Heat Transfer in Straight and Helical Copper Tubes**

Jan 2025 - May 2025

Conducted an experiment to compare convective heat transfer between straight and helically coiled tubes.

- Concepts Used: Heat Transfer, Thermodynamics

- The helical coil showed 10% greater heat removal and convective heat transfer coefficient, attributed to enhanced mixing and secondary flows.
- Analysis included Reynolds number, Nusselt number, heat transfer coefficients. The results validate the superior thermal efficiency of coiled tube designs.

- **Water Quality Prediction**

April 2025

Github

Built a machine learning pipeline to classify drinking water safety.

- Tools technologies used: Logistic Regression, SVM, and XGBoost

- Addressed class imbalance using SMOTE and improved model accuracy from 62% to 70% through hyperparameter tuning.

TECHNICAL SKILLS

- **Programming:** Python and Python Libraries, C++, Machine Learning, Deep Learning.

- **Tools & OS:** Matlab, Google Colab, Visual Studio, Spyder

- **Libraries/Frameworks:** Pandas, Numpy, scikit-learn, Matplotlib, Tensorflow, Keras

KEY COURSES TAKEN

- Introduction to Data Science and Machine Learning

- Computational Techniques for Chemical Engineers, Chemical Reaction Engineering

- Fluid and Particle Mechanics, Process Heat Transfer, Chemical Engineering Thermodynamics

POSITIONS OF RESPONSIBILITY

- Coordinator, PR and Sponsorship Committee, IIT Tirupati

2025-2026

- Core Member, Celeste Club, IIT Tirupati

2024-2026

- Core Member, Fitness Club, IIT Tirupati

2025-2026

KEY CONTRIBUTIONS

- Awarded 2nd place and a cash prize for a Poster presentation on Ammonia Synthesis via the UHDE Process.

- **Inter IIT Fashion Show - Designer & Model**, Showcased dual talents as designer and model at the Inter IIT Fashion Show. Passionate about fashion and regularly involved in college-level fashion events and shows. 2024

CERTIFICATIONS

- IIT KANPUR Certified program on PYTHON for Artificial Intelligence Machine learning and Deep Learning Certificate

- Artificial intelligence with Python by Coincent.ai Certificate