



# Thummala Siri chandana

BTech  
Chemical Engineering  
Indian Institute Of Technology, Tirupati

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[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  
*Built a machine learning pipeline to classify drinking water safety.* [Github](#)
  - **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](#)