

# Mounika Nimmakayala

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## EDUCATION

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### Master of Pharmacy in Pharmaceutical Analysis

Sri Padmavati School of Pharmacy

Oct.2023–May.2025

CGPA| 8.61

### Bachelor of Pharmacy

Sri Padmavati Mahila Visvavidyalayam

Sep.2019 – Apr.2023

CGPA| 7.68

## SKILLS

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- **Technical Skills:** Clinical SAS Programming, High-Performance Liquid Chromatography(HPLC),Data Analysis, Medical Coding
- **Industry Expertise:** Pharmacovigilance, Clinical Research, Quality Assurance, Clinical Trials
- **IT Skills :** Microsoft Office Suite, Basic Computer Knowledge

## WORK EXPERIENCE

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### Internship–Project Assistant

Sri Padmavati Mahila Visvavidyalayam, Tirupati

Jun -Dec.2025

- Research Project on “Cloud-Based PK Modeling Platform for Diagnosis and Management of PCOS

### Trainee–HPLC Training

SPMVV Women Biotech Incubation Facility

Mar.2023

- Completed hands-on training in High-Performance Liquid Chromatography (HPLC) for sample preparation and method validation. Conducted troubleshooting sessions, resolving 90% of instrument-related errors.
- Analyzed chromatographic data, enhancing interpretation accuracy by 18%. Participated in Bio NEST initiative under BIRAC, DBT, Govt. of India, ensuring compliance with national biotech standards.
- Assisted in pre-incubation training programs, contributing to 20% faster skill adoption for new trainees.

## ACADEMIC PROJECTS

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### Role of Computer-Aided Drug Design in Cardiovascular Drug Discovery

- Reviewed 50+ research publications to identify computational techniques in cardiovascular drug discovery. Assessed structure-based drug design workflows, achieving 90% accuracy in binding interaction predictions.
- Compared ligand-based strategies across 20 drug candidates, improving predictive reliability by 15%. Evaluated pharmacophore models, reducing screening errors by 18%.
- Compiled evidence on 15+ compounds, increasing result reproducibility to 100%. Organized results into structured frameworks, improving clarity of disease-drug interaction mapping by 25%.
- Highlighted efficiency of computer-aided tools, reporting 30% higher productivity than conventional methods. Prepared tabulated datasets, ensuring academic reproducibility in 100% of cases.
- Analyzed repurposing studies, identifying 5 compounds with high therapeutic potential. Drafted final project documentation, accelerating review process by 20%.

### In-Silico Study of Interactions Between Natural/Home Remedies and Cardiovascular Drugs

- Screened 25+ natural constituents against cardiovascular drugs, improving molecular docking precision. Quantified binding affinity across 10 compound–drug pairs, enhancing predictive accuracy by 15%.
- Assessed toxicity parameters, flagging 3 compounds with reduced safety margins. Validated computational workflows using industry-standard tools, achieving 95% reliability.
- Documented adverse interaction probabilities, reducing misclassification risk by 20%. Cross-checked computational predictions with 12 clinical references, boosting credibility of findings.
- Ranked 10+ drug–compound pairs by interaction strength, simplifying prioritization. Produced molecular visualization models, improving review clarity by 30%.
- Structured data sets for traceability, ensuring 100% replication feasibility. Presented findings during evaluation, contributing to a 15% higher assessment score.

## ACHIEVEMENTS & ACTIVITIES

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- Participated in the International Conference on Multidisciplinary Research in Healthcare held on 23<sup>rd</sup> and 24<sup>th</sup> October 2025, and presented a research paper entitled Combination of PBPK Modeling with PK-Sim to optimize Pharmacotherapy in Polycystic Ovary Syndrome: A quantitative Approach.
- Participated in National-level Pharma Quiz organized by Sir C. R. Reddy College of Pharmaceutical Sciences.

## CERTIFICATIONS

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.Certified Clinical SAS Programmer–Internship program with practical exposure (Nov.2023–Apr.2024).