Thirumalareddy Sudheshna Reddy

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EDUCATION

- **ABV-Indian Institute of Information Technology and Management, Gwalior** Gwalior, India
  Integrated B.Tech and M.Tech in Information Technology; CGPA: 7.66 **2022 – Present**

- **Narayana Junior College** Vijayawada, India
  BIE AP, Intermediate - Percentage: 97.4% **2019 – 2021**

COURSEWORK / SKILLS

- Data Structures Algorithms
- Database Management Systems (DBMS)
- Computer Organization and Architecture
- Oops Concepts
- Operating Systems
- Computer Networks

PROJECTS

Fake Currency Detection ⬈ | Python, Flask, OpenCV, KNN, Tesseract **2024 – 25**

- Built an image-based fake currency detection system using **OpenCV** and the **K-Nearest Neighbors (KNN)** algorithm.
- Engineered feature extraction pipelines with Histogram and SSIM to improve classification performance.
- Achieved **92% detection accuracy** and enhanced security in **real-time** currency validation workflows.

Real-Time Chat App ⬈ | MERN Stack, Socket.io, Redux, JWT **2024 – 25**

- Developed a MERN stack chat app with **JWT auth, protected routes**, and **live 1:1 messaging**.
- Managed global state efficiently with **Redux Toolkit**, improving UI responsiveness by **40%**.
- Built and deployed **15+ RESTful APIs**, integrating **MongoDB Atlas for scalable** cloud data handling.

Echo Chamber Characterization ⬈ | Python, NetworkX, NumPy, Pandas, Matplotlib **2025**

- Simulated political bias and interaction in **social networks** using Baseline and **Power Law models**.
- Quantified echo chambers through metrics like Production Polarity, Mixing Patterns, and EI Index.
- Visualized trends across **36-user using NetworkX**, enhancing interpretability of polarization dynamics.

TECHNICAL SKILLS

Languages: C, C++, JavaScript, SQL, Python
Technologies/Frameworks: HTML5, CSS3, React.js , MongoDB, Express, Next.js, Node.js, Bootstrap, Flask
Tools & OS: VS Code, PyCharm, Canva , Latex, Linex , Windows, Git ,MySQL, UI/UX, AWS ,Figma
Soft Skills: Leadership , Communication , Event Management , Public speaking

ACHIEVEMENTS

- Selected as a **SheFi Season 14 Scholar**.
- Secured 98 percentile (**Top 2%** among **10,00,000** candidates) in **JEE Main 2022**.
- Successfully cleared **GATE 2025 CSE** paper in 1st attempt.
- Contributor at Social Summer of Code 2025 - Worked on **open-source projects** under guidance.

VOLUNTEER EXPERIENCE

- **Event Manager - Aurora 24** **2024**
  Organised central India's largest cultural fest Gwalior, India
- **IEEE Student Branch Member - IIITM** **2023 – 2024**
  Organized technical events and seminars to promote learning and development. Gwalior, India
- **Technical Team Member - Uthaan** **2022 – 2023**
  Assisted with event tech, managed digital content, and ensured smooth operation of journalism club activities.