

Sai Sathwik Kosuru

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EDUCATION

- 2021-2025 B.Tech in Computer Science at **B V Raju Institute of Technology** (GPA: 8.61/10.0)
- 2019-2021 Class 12th TSBIE at Vijayaratna Junior College (94.6%)
- 2009-2019 Class 10th CISCE at Ramadevi Public School (91.67%)

SKILLS

- **Tech Stack:** Machine Learning, Computer Vision, DBMS, Application Development
- **Technical Languages:** JAVA, C, Python, Kotlin, SQL, HTML, CSS, Javascript

WORK EXPERIENCE

Young Research Fellow, I-Hub Data, IIIT Hyderabad July 2023 - April 2024

- Employed Extreme programming to build an Android System handling **92% of 1000 patients' data**
- Adopted best practices for product management with **45% collaborations** and **55% project execution**
- The app drives **84%** of hardware data acquisition from an **IoT sensor-based healthcare project**

Junior Research Fellow, Special AIML Research Lab November 2021 - July 2022

- Elucidated **Deep Learning architectures** resulting in **85% analytics** at a scale seen nowhere before
- Adopted **Timeboxing techniques**, thus saving **54% of development costs on time**
- Spearheaded the adoption of solutions for **75% of technical issues** faced by Hyderabad clients

President of Student Research Cell November 2022 - May 2025

- Drafted and submitted **5+ proposals** with **92% emphasis on data-driven technologies**, currently under consideration.
- An international collaboration center with the **University of Witwatersrand, South Africa** is currently under discussion to be set up at our institute for which I am leading a faculty-cum-student delegation team from my institute.

Research Assistant, Societal Data-Driven Solutions Lab July 2021 - October 2023, April 2024 - May 2025

- Led **PowerBI visualizations** to analyze and provide actionable insights into opportunities for women, identifying a **15% rise** in scholarship opportunities, while highlighting a **25% deficit** in event participation, influencing targeted interventions.
- Authored and submitted a **grant proposal** for **Rural Women Empowerment**, impacting **800+ rural women** through AI applications in embroidery and tailoring, resulting in the successful establishment of **WeHub**, a platform to increase **30% female participation** in research projects.

PUBLICATIONS

4.1 Conferences

- Kosuru SS et al. Data Analytics on the Opportunities for Women in the Field of Technology. 5th International Conference on Human-Computer Interaction, Optimization, and Robotic Applications; May 10, 2023; Istanbul, Turkey. IEEE Explore, Scopus, Google Scholar. 20 November 2024.
- Kosuru SS et al. Multi-Data Multi-Cuisine Prediction of Food Quality using the Object Detection Capabilities of YOLO NAS. 5th International Conference on Cybernetics, Cognition, and Ma-

chine Learning Applications; August 21, 2023; Elmshorn, Germany. IEEE Explore, Scopus, Google Scholar. 22 November 2024.

- Kosuru SS et al. GICaps: Leveraging Geometrico Physical Computer Vision Techniques On Capsule Vision Endoscopy. Under review at CVPR 2025. 25 November 2024.
- Kosuru SS et al. DynPR: Dynamic Evaluation of Patterns Across Data Streams Via Deployed Applications. Under review at CVPR 2025. 25 November 2024.
- Kosuru SS et al. Estimating the Scalability of Various Modern Deep Learning Models on a Single Data Set: A Posterior Analysis. Under review at ICERCS 2023. 19 November 2024.

4.2 Journals

- Kosuru SS et al. Apriori Analysis of Deep Learning Models on a Multi-class Data Set. 4th International Conference on Smart Systems: Innovations in Computing; 21 October, 2023; Jaipur, India. Springer Book Series-Smart Innovation, Systems and Technologies (SCOPUS). 11 November 2024.
- Kosuru SS et al. BenchMark Analysis Of Deep Learning Models. Under 2nd review at MTAP 2024. 30 October 2024.
- Kosuru SS et al. Deep Learning Architectures For Creating Large Language Models (LLMs). Under review at Arabian Journal for Science and Engineering (AJSE) 2024. 22 November 2024.
- Kosuru SS et al. Evaluation Techniques For Effort Estimation in Designing Effective ML Models. Under review at International Journal on Computers and Applications. 25 November 2024.

4.3 Preprints

- Kosuru SS et al. Identifying The Case For The Prediction of Mental Health Using AdaBoost. Preprint at arXiv. Will be submitted for International Conference on Machine Learning (ICML) 2025. 25 November 2024.

RESEARCH PROJECTS

Face Recognition System

- Developed a 20% accurate robust image processing pipeline using **PIL**, **DLIB** and **Flask**.
- Built a 95% automated detection system to enable biometric authentication applications.

Covidrug: Drug Discovery for Covid-19 Using Machine Learning

- Orchestrated **Python**, **Machine Learning techniques**, and **drug research methodologies**.
- Generated 95% accurate analyses on structures for the discovery of 32+ COVID-19 drugs.

Toxstatanalysis: Analysis of Toxic Compounds Released by Industries

- Conducted data-driven analysis on toxic compounds from **50+ industries**, identifying **30% reduction opportunities** in harmful emissions.
- Led a collaborative project analyzing the impact of industrial emissions on local ecosystems, resulting in **40% improved regulation recommendations**.

HONOURS, AWARDS, AND PRIZES

- **Young Research Fellowship**: Annual Award on Research for AI in Healthcare
- **Top in HoD Top 5 List**: Awarded to top 5 students for every batch ranked according to the following parameters: Research, Entrepreneurship, IT Skills, Oratory, and Ideation
- **Special Mention in Infosys Campus Connect**: Awarded to the Top Student who presents Technology Coherently and Clearly
- **Honor Card**: Awarded to the students who topped the class for at least 8 times
- **Distinction Card**: Awarded to the Students with Aggregate >85%
- **SOP GK Olympiad**: Obtained Top 50 Rank in 2015

- **International Hackathon:** Awarded Appreciatory Prize
- **Young Scientist Federation:** Obtained 2nd Special Prize for my Solution on Computer Memory Organization
- **Prefectorial Badge:** Awarded to School Leadership Board Leader
- Obtained the first position in an intra-school debate event on the topic-"Use of animals for Bio-Chemical experiments in Research Laboratories"