

SAKSHI AGARWALA

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EDUCATION

Ramaiah Institute of Technology

Electronics and Instrumentation – 8.51 CGPA

Dec 2021 – Jul 2025

Bangalore, Karnataka

SKILLS

Coursework: OOPs, DBMS, DSA, DSD, Embedded Systems, ANN, Reinforcement Learning, RNNs, CNNs, Statistics

Languages: Python, C++, JavaScript

Tools: Pycharm, Streamlit, VS Code, Anaconda, Git, GitHub, Jupyter Notebook, Docker, Linux, Virtual Environments, PyTesseract, OpenCV

Frameworks/Tools: cikit-Learn, Pandas, Numpy, Matplotlib, CUDA, NVIDIA tools, Deep Learning frameworks (e.g., TensorFlow, PyTorch)

Databases: MySQL

Design: Figma, Adobe illustrator, Canva

Productivity: Notion

Other Software: Scilab, Code Composer, Matlab, Keil uVision4, Docker (for image management, containerization)

EXPERIENCE

SPIRE Lab- IISC

Project Intern

Oct 2024 – present

Bangalore, Karnataka

- Deployed and fine-tuned Kosmos and other models, achieving high accuracy through pre-processing techniques and model optimization. Developed and implemented an OCR pipeline using Python, OpenCV, and PyTesseract to automate text extraction from images, improving data processing efficiency. Evaluated model accuracy using metrics like Word Error Rate (WER) and Character Error Rate (CER) with jiwer, achieving high accuracy through pre-processing techniques and model optimization. Currently work on bounding box detection and exploring models to do so.

Ecell Ramaiah

President

Sep 2022 – present

Bangalore, Karnataka

- Directed the Entrepreneurship Development Cell, organizing 20+ events and boosting student engagement by 35 percent, while redesigning promotional materials and increasing event attendance by 30 percent.

Polism Solutions

Cloud Computing and Security Internship

Nov 2023 – Dec 2023

Bangalore, Karnataka

- Developed innovative application features and successfully spearheaded a cloud migration project at Polism Solutions, resulting in improvement in system scalability and reliability, while honing technical skills in modern development practices.

PROJECTS

Inverted Pendulum Balancing System | Python, Reinforcement Learning, PID Control, DL

November 2024 - Present

- Developing and comparing reinforcement learning (RL) and PID control algorithms to balance an inverted pendulum. The project involves implementing and testing PID control for stability, while exploring deep reinforcement learning to improve performance. The system is built using Python and RL frameworks like TensorFlow and OpenAI Gym, with a focus on evaluating balance stability and response time.

Movie recommender system | Python, Scikit, Pycharm, Streamlit— [View Source Code](#)

August 2024

- A movie recommender system in which the data was fetched using a kaggle dataset and then vectorization was applied to obtain an algorithm. The algorithm was then deployed using pycharm and streamlit.

Smart Plant Monitoring System | Arduino, C++

May-June 2024

- Built an automated system using various sensors, a solar panel, and a rainwater harvesting system.

Jeevahan | Flutter, Figma

November 2022

- Developed an application for emergency services using Flutter and designed UI in Figma.

ACHIEVEMENTS

Hackathons and Competitions

- Selected for Centuriton, a national-level hackathon conducted by RIT.
- Achieved top 10 placement in Whackiest Hackathon, an intra-college event.
- Selected for Smart India Hackathon, a prestigious national competition.
- Secured **First Prize** in Entrepreneurship Development Cell's **Design Competition** among **30** teams.
- Secured **Second Prize** in IEEE'S **UI/UX Competition** among **35** teams.

CERTIFICATIONS

Certifications

- Google data analytics | Coursera.com— [Certificate](#) September 2024

LEADERSHIP / EXTRACURRICULAR

Co-Ordinator - Event Coordinator for RIT Techfest and Campaigning team of UDBHAV
Stardust- Member and ex-head of the non-tech division of the Space Club of our college
Theatrix - Member of a theatre club in college.
NSS - Worked as a volunteer.