

Madhav Kadam

Roll No.:210001027

B.Tech - Computer Science and Engineering

Minor in Economics

Indian Institute Of Technology Indore

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology Indore	9.05 (Current)	2021-Present
Economics Minor	Indian Institute of Technology Indore	10.0 (Current)	2021-Present
Senior Secondary	Sanjay Ghodawat Junior College, Atigre Kolhapur	97.17%	2021
Secondary	S K Pant Walavalkar High School, Kolhapur	97.60%	2019

EXPERIENCE

- Medical Vision Group** Jun 2023 - present
Member IIT Indore
 - Reviewed multiple SOTA medical image processing models like SegDiff, MedsegDiff and PatchDDM.
 - Assessing developments in diffusion models and transformers to enhance the segmentation performance significantly.

PROJECTS

- Vitals Extraction Challenge by Cloudphysician** Jan. 2023 - Feb. 2023
Inter IIT Tech Meet 11.0 (IIT Kanpur) Github
 - Created the fastest and the most accurate (92% perfect predictions) pipeline (among all IITs) for extracting vitals with their labels and digitized graphs from the image of the ICU monitor screen.
 - Implemented SOTA Image segmentation and Object detection models like YOLOv8n, Mask RCNN, Segformer, Retinanet and DETR on a custom dataset of 2000 self-annotated images and 7000 unannotated images.
 - Leveraged paddleOCR, SCAN algorithm, as well as semi-supervised learning for improvements in accuracy.
- IITIHub** Jan. 2023 - Apr. 2023
under supervision of Dr Puneet Gupta, Assistant Prof., CSE, IIT Indore Github
 - Developed flutter and firebase-based android application from scratch for the IIT Indore community.
 - Streamlined student-professor project collaboration, categorized emails, provided news bulletin and campus map.
 - Refined the app with different levels of user privileges and guest mode (for visitors).
- Song Recommendation System based on facial emotions** Jun. 2022 - Aug. 2022
Team Leader, IITI Summer of Code 2022 Github
 - Deployed a custom model to identify emotions using facial expressions and recommend songs in sync with them.
 - Used OpenCV, TensorFlow, flask and stream-lit. Provided an option to use the RMN model as well.

TECHNICAL SKILLS

- Programming Languages:** C++, Python, SQL, JavaScript, Dart*
- Development:** Flask, Node.js, MySQL, FastAPI, Firebase, Flutter, Git, React*, Django*, BeautifulSoup.
- AI/ML:** OpenCV, Tensorflow, Scikit-Learn, Keras, PyTorch* * Elementary proficiency

KEY COURSES TAKEN

- Mathematics:** Differential Equations & Calculus, Linear Algebra, Complex Analysis, Numerical methods
- Computer Science:** Data Structures and Algorithms, Design and Analysis of Algorithms, Discrete Mathematical Structures, Automata theory, Database and Information System, Software Designing, Logic Design

POSITIONS OF RESPONSIBILITY

- Placement Coordinator**, Training and Placement Cell, IIT Indore Feb 2023 onwards
- Head of Events**, Cynaptics Club, IIT Indore Apr 2023 onwards
- Head of Mentorship**, The Debating Society IIT Indore Apr 2023 onwards
- Member**, Academic Council, IIT Indore Jun 2022 - Mar 2023
- Teacher (English, Mathematics and Social Sciences)**, Margdarshan Programme Sept. 2022 - Nov. 2023

ACHIEVEMENTS

- Gold Medalist (Rank 1)**, Inter IIT Tech Meet 11.0 (IIT Kanpur) 2023
- Article on MDG-1 published**, Beyond Margins Annual Journal 2023
- 2nd Position (Team Leader)**, IITISoC 2022
- Gold Medal**, IIT Indore Annual Debating Championship (Word Wars) 2022
- All India Rank 1140**, JEE Advanced 2021