

# Ananya Das

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## Education

### Manipal Institute of Technology, Manipal

B.Tech in Computer Science and Engineering with specialization in Artificial Intelligence and Machine Learning

Expected Graduation: 2028

CGPA: 8.6/10

**Relevant Coursework:** Data Structures and Algorithms, Database Systems, Object-Oriented Programming, Computer Organization and Architecture, Formal Languages, Digital System Design.

## Experience

### Research Fellow

Jan 2026 – Present

Constrained Image Synthesis Lab

- Researching on Deep Reinforcement Learning based Half Toning for diffusion models alongside inference time loss and perception safety for brand aware logos and flexible packaging.

### AI/ML and Data Analysis Team Lead

Aug 2025 – present

PSPH Research Survey System

- Designed AI-enhanced regression models to predict relevant tests and insights from large-scale survey data.
- Built personalized analytics pipelines to generate tailored outputs for different survey objectives.
- Led a team in experimentation, feature engineering, and model evaluation on real-world, noisy datasets.

### Student Researcher

April 2025 – present

RUGVED Systems

- Developed an object detection model with base FRCNN with extensive augmentations on RASMD dataset to aid object detection in adverse conditions for autonomous vehicles, using SWIR multispectral data.
- Built a Swin-Efficientnet model using knowledge distillation to achieve 98.25 accuracy for classification on BreakHis Cancer dataset.

### Contributor and Campus Ambassador

Sep 2025 – Nov 2025

GirlsScript Summer of Code (GSSoC)

- Increased reach of program across a batch of 2000+ students via social media talks and hackathon programs.
- Contributed to open source projects targeting mental health awareness and online assistants.

## Publications

### DilAtSE-Net: An Encoder Decoder Network for Burnt Area Delineation

OpenReview [↗](#)

- Research paper on AI for Environmental Science accepted in **AAAI 2026 AI4ES**, developed Novel AI model for **burnt area delineation** obtaining Dice of 0.9297 with only 12.8M params.

## Competitions

### Flipkart : Girls Wanna Code

National Level

- Qualified the screening process and made it into the technical evaluation rounds.

### ChurnOpp X Hackathon'25

College Level

- Implemented an AI-based system to enhance churn rate analysis by evaluating customer feedback and click based rates for a real time admin dashboard.
- Won 1st place against 10+ participating teams.

## Projects

### JustifAI

- Built an inclusive legal-tech platform with WhatsApp voice + AI-IVR intake, using ASR, multilingual translation, and intent classification to structure and store legal grievances.
- Developed a law-student and pro-bono matchmaking system with AI case summarization, smart filtering, and seamless student-lawyer-firm connections.
- Tech Stack: Python, Node.js, React Next.js

### Voyager

- Built a B2B travel platform targetting early fraud detection and credit risk using AI algorithms built on behavioural trends of target agencies and external signals for credit risk.
- Tech Stack : Python, scikit-learn, Node.js, Hidden Markov Models

## Technologies

**Languages:** C, Java, Python

**Technologies:** PyTorch, OpenCV, TensorFlow, MySQL, Scikit-Learn, Pandas, Numpy, Ubuntu, ROS