# Aditya Khamitkar

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# Education

## Vellore Institute of Technology, Bhopal

India

Master of Technology (5 Year) in Computer Science and Engineering (Computational and Data Science)

Oct 2022 - 2027

• CGPA: 7.85/10.0

Space Central School

Class XII May 2021

• Percentage: 94.4%

# Work Experience

# Freelance AI Model Trainer Evaluator Soul~AI

Jan 2025 - Present

Remote

- Contributed to the development and enhancement of Gemini (Bard) through active participation in large-team projects like Project Shield and Project Bluebird.
- Utilized Python and RLHF methodologies to refine prompts and correct model outputs, specifically improving Gemini's accuracy in Python, Math, and Data Science applications.
- Engaged in collaborative efforts to train and validate AI models, including foundational work for upcoming Financial RAG models, ensuring robust and reliable performance.

# Freelance AI Training Specialist $Outlier\ AI$

Jan 2025 - Present

Remote

- Orchestrated the improvement of large language models (LLMs) across multiple projects, including Jellyfish Rubrics and Vibrant Clownfish, by developing detailed rubrics and iteratively refining AI-generated responses for quality and relevance, particularly in code generation.
- Enhanced the accuracy and complexity of AI-driven solutions for SWEAP problems through Hyperion Augmentation, adding critical details to problem sets.
- Contributed to the evaluation and refinement of state-of-the-art LLMs, including Hopper V2 and Mighty Moo, by analyzing model outputs, providing critical critiques, and challenging model capabilities with complex queries, often involving multimodal data.
- Actively engaged in prompt engineering and answer correction for ChatGPT, specializing in Python, Math, and Data Science domains, ensuring high-quality and accurate model outputs.

# Data Science and AI/ML Engineering Intern Satish Dhawan Space Centre (ISRO)

Oct 2024 - Nov 2024

Sriharikota

- Analysed telemetry data from 20+ PSLV rocket launches, focusing on signal strength and flame attenuation, and applied AI
  methodologies to enhance mission safety and operational efficiency across 80 individual stages.
- Developed and implemented predictive models and visualizations to identify signal degradation and interference patterns, enabling proactive safety measures throughout the four stages of the PSLV launch process.
- Applied advanced ML techniques and statistical modelling on signal integrity, resulting in a 15% reduction in signal issues during critical flight phases, improving signal clarity by 25% and predictive accuracy by 20% in simulated PSLV launch environments.

## Intel AI 4 Youth Trainee

Mar 2021 - Oct 2021

#### Intel Corp and Electronics and Information Technology

Remote

- Collaborated with Intel AI experts to design "Doctor Bot", an AI-powered virtual healthcare assistant, improving accessibility and efficiency in patient care.
- Achieved finalist distinction from over 52,000 participants in a prestigious nationwide Al challenge, demonstrating advanced machine learning expertise and innovative data processing solutions.

# **Projects**

#### Project Aether

**Tech Stack:** Python, OpenCV, Deep Learning, Image Processing, GANs, Retinex Theory, TensorFlow, Horus Algorithm

- Enhances low-light images from Permanently Shadowed Regions (PSRs) of lunar craters to improve signal-to-noise ratio (SNR).
- By applying advanced deep learning and image processing, the project creates high-resolution image maps from Chandrayaan-2's OHRC, aiding lunar landing site selection.

# AgriSat AI

Tech Stack: Python, Image Processing, Remote Sensing

- Leveraging Al and satellite data to optimize agriculture and irrigation systems for sustainable farming.
- Features real-time crop health monitoring, water usage optimization, and yield prediction models.

#### Parko - Smart Parking Solution

Tech Stack: React Native, Node.js, Firebase, Razorpay API

- Created an AI-enabled parking platform that reduced vehicle search time by nearly 40% in busy city environments.
- Built using React Native, Node is, and Firebase to ensure cross-platform compatibility and real-time slot availability updates.
- Enabled secure digital entry via QR code scanning with seamless integration of UPI and Razorpay for payments.

# **Technical Skills**

- Expertise: Artificial Intelligence ML: Deep Learning, Neural Networks, Generative AI (Gen AI), GANs, Natural Language Processing (NLP), Data Modelling, Remote Sensing, Image Processing, Project Planning
- Languages: English, Hindi, Marathi, Telugu
- Frameworks: TensorFlow, Keras, PyTorch, NumPy, Pandas, AWS, Azure, Apache Kafka, Hadoop
- Tools: Python, Java, C++, MongoDB, SQL, MySQL, Advanced Excel, Tableau, Power BI
- Professional: Data Engineering, Data Science, Software Development, Data Analytics, Machine Learning and AI Engineering, Open Source Development

## Extra Curricular

## Project Collaborator, VIT Bhopal AI Innovator Hub

July 2025 - Present

Inaugural Project: Darzi - AI Resume Tailor Suite

• Selected to contribute to the hub's first official project, focused on creating an AI-driven platform to tailor and optimize resumes.

#### Tech Team Lead, Data Science Club

May 2024 - May 2025

- Led the technical team in organizing and executing multiple data science-focused events and workshops.
- Spearheaded the development of a comprehensive tenure project for the Data Science Club, showcasing practical applications of data analysis.

# ML Engineering Team Member, Open Source Club

Sept 2023 - Apr 2025

- Contributed to various open-source projects, focusing on the implementation and optimization of machine learning models.
- Collaborated with team members to integrate ML functionalities into larger open-source software.

#### Technical Team Member, AI Club

Apr 2024 - Apr 2025

- Actively participated in club projects, applying AI and ML techniques to solve real-world problems.
- Assisted in conducting technical sessions and tutorials for fellow club members to enhance their AI skills.

## **Hackathon Achievements**

# Smart India Hackathon (SIH) 2024 Finalist

2024

VIT Bhopal Internal Hackathon

• Advanced to the final round by developing and presenting an innovative solution for a real-world problem statement.

# IISF Space India Hackathon Finalist

2024

ISRO

• Achieved finalist status by designing a novel technology-driven solution for a complex challenge in the space technology sector.

## SolVIT Hackathon Finalist

2025

VIT Bhopal University

• Secured a finalist position with the project "ParkO," a full-stack smart parking solution, demonstrating rapid prototyping and development skills at SolVIT Hackathon conducted by the Hostel Committee at VIT Bhopal University.

## Certifications

# IBM AI Engineering Professional Certificate, IBM