

Amit Bendkhale

🏠 amiton7.github.io | 📄 Amiton7 | 🔗 LinkedIn

Education

Indian Institute of Technology Roorkee

INTEGRATED MASTERS IN APPLIED MATHEMATICS

Roorkee, India

Jul 2016 - May 2021

- Cumulative Grade Point Average : 7.746/10
- Outstanding** grade in *Design and Analysis of Algorithms*

Publications

- [1] **A. Bendkhale**. "Tri-Bench: Stress-Testing VLM Reliability on Spatial Reasoning under Camera Tilt and Object Interference." *AAAI 2026 Workshop on Trust and Control in Agentic AI (TrustAgent)*, 2026. Accepted. To appear. [arXiv link](#).

Experience

Convrse.ai

RESEARCH ENGINEER II

Gurugram, India

Nov 2022 - Present

- Designed a novel GNN-based mesh decimation algorithm, for optimal vertex weights estimation during QEM.
- Implemented texture-generation, user-defined remeshing, psycho-visual error metrics, occlusion culling, etc.

Oracle India Pvt. Ltd.

MACHINE LEARNING ENGINEER (MEMBER OF TECHNICAL STAFF)

Bangalore, India

Jul 2021 - Jan 2022

- Part of the Adverse Impact project. Worked on Bayesian neural network for detecting discrimination in hiring decisions.

Myntra Designs Pvt. Ltd.

MACHINE LEARNING INTERN

Bangalore, India

Apr 2020 - Jun 2020

- Improved existing classification model for identifying best payment gateways with real-time input credit cards.

The University of Hong Kong

SUMMER RESEARCH ASSISTANT, SUPERVISOR: **PROFESSOR WENPING WANG**

Pok Fu Lam, Hong Kong

May 2019 - Jul 2019

- Implemented PointNet++ and Mask R-CNN for instance segmentation of point clouds representing human teeth.

Chennai Mathematical Institute

SUMMER RESEARCH INTERN, SUPERVISOR: **PROFESSOR PRAJAKTA NIMBHORKAR**

Chennai, India

May 2018 - Jul 2018

- Innovated optimal UAV traversal for agricultural lands using EECD polygon decomposition and multi-UAV scheduling.

Projects

Simulating Student Misconceptions and Their Correction with LLMs

SUMMER OF OPEN AI RESEARCH, MENTOR: **QIYAO WEI**

Eleuther AI

Aug 2025 - Sep 2025

- Investigated simulations of misconceptions and how UCB algorithm can lead to fast misconception correction.

Behavioral Phonetic Probes: Single-Image Stress Testing of VLM Safety

RESEARCHER, MENTOR: **DR. RAJ DANDEKAR**

Vizuara AI

May 2025 - Sep 2025

- Encoded phonetic cues to bypass VLM Safety without complete text prompts, leading to scalable adaptive red-teaming.

Quantifying educational values in card games

RESEARCHER

Independent

Aug 2024 - Paused

- Designed novel paradigm for quantifying educational values obtained through playing any card game.

Solving Kenken using Hybrid Evolutionary Algorithms

RESEARCH ASSISTANT, SUPERVISOR: **PROFESSOR KUSUM DEEP**

IIT Roorkee

Jan 2021 - Apr 2021

- Investigated combinations of heuristics and genetic algorithms to solve KenKen Puzzles efficiently.

Colored Spanning Graphs for Set Visualization

RESEARCH ASSISTANT, SUPERVISOR: **PROFESSOR S. P. SHARMA**

IIT Roorkee

Jan 2019 - Apr 2019

- Synthesized a dynamic programming solution for generating Minimum RBP Spanning Graphs for elliptical regions.

In-painting techniques using Fractional Calculus

RESEARCH ASSISTANT, SUPERVISOR: **PROFESSOR P. N. AGGARWAL**

IIT Roorkee

Aug 2018 - Nov 2018

- Implemented methods of Fractional Order Total Variation Models to optimize in-painting and texture preservation.

Achievements / Honors

Mar 2025	World Rank 1 , Competitive Programming website “Erdős” with 40+ ICPC World Finalists	<i>IIT Roorkee</i>
May 2021	World Rank 1 , Codechef May Long Competitive Programming Challenge 2021	<i>CodeChef</i>
Oct 2018	Second Position , Inter Collegiate Chess Tournament, UDGHOSH 2018	<i>IIT Kanpur</i>
Feb 2018	HERITAGE EXCELLENCE AWARD , prestigious award for outstanding overall performance	<i>IIT Roorkee</i>
Dec 2016	INSPIRE Scholarship Award , awarded by Department of Science and Technology India	<i>IIT Roorkee</i>
Jul 2016	Top 0.27% , JEE Advanced 2016 exam with more than 1.2 Million participants	<i>IIT Guwahati</i>

Certified Coursework

Continuing / Postgraduate Studies

INTERDISCIPLINARY AI FOUNDATIONS

- Explainable AI, Duke University
- Large Language Models, Vizura AI
- Reinforcement Learning, UAlberta
- Evolutionary Algorithms, IIT Roorkee
- Deep Generative Models, Stanford Online
- Modern Robotics, Northwestern University
- Game Theory, Stanford Online
- Differential Geometry, IIT Roorkee

Workshops / Conferences

Aug 2025	Participant , Neuro-Symblic AI Summer School	<i>Centaur AI Institute</i>
Aug 2025	Participant , Oxford ML Summer School on Representation Learning & Generative AI	<i>Univ. of Oxford</i>
Jun 2025	Participant , Games Based Learning Virtual Conference	<i>Univ. XP</i>
Dec 2019	Participant , Association of Computing Machinery Winter School on Geometric Algorithms	<i>IISER Pune</i>
Jul 2019	Participant , Number Theory Days Program	<i>Univ. of Hong Kong</i>
Jul 2018	Participant , FACETS Mathematics Outreach Program	<i>IMSC Chennai</i>
Dec 2016	Participant , KVPY Vijyoshi National Science Camp	<i>IISER Kolkata</i>

Positions Of Responsibility

Reading Group, TWIML

TWIML

HOST

Jun 2024 - Mar 2025

- Hosted a reading group at This Week In Machine Learning (TWIML), to read *Deep Learning* by Goodfellow et. al.
- Organised weekly brainstorming sessions with 100+ international participants

IIT Roorkee Chess Club

IIT Roorkee

CO-FOUNDER / VICE PRESIDENT

Aug 2018 - May 2019

- Co-founded and reformed the very first chess club in IIT Roorkee
- Tactics Coach of students enrolled in National Sports Organisation
- Successfully organised a three-player Triwizard Chess Tournament with around 140 participants

Extracurriculars

- **AI engagement** ELLIS Reading Groups, Stanford Online AI Connect, Berkeley AI Safety Initiative, AI Safety GA Tech
- **AI Open Source** Active on 10+ Open Source AI communities
- **Social Welfare** AI awareness in rural India, Open Library Movement, GBL for reducing math anxiety in children
- **Athletics** Football Corporate Team Convse.ai; (Left-Wing) Football and 100m in National CBSE Clusters Under-19
- **Board Games** Member of Indie Board Game Designers, Board Games India, The Board Games Workshop
- **Competitive Programming** Former Solver and Problem Setter on Codeforces, Project Erdos, Project Euler, etc
- **Math engagement** Former Student Member of American Mathematical Society, Association of Computing Machinery