Nachiketa Patil

Panvel, Navi Mumbai, Maharashtra

✉ npatil@iitb.ac.in
⌗ github.com/nachiketapatil
in in.linkedin.com/in/nachiketapatil123

ACADEMIC DETAILS

Examination	University	Institute	Year	CPI/%
M.S. by Research	IIT Bombay	CMInDS, IIT Bombay	2026	7.54
Graduation	Mumbai University	Atharva College of Engg.	2023	8.86
HSC (Class 12)	Maharashtra State Board	Fr. Agnel Jr. College	2019	78.46%
SSC (Class 10)	Maharashtra State Board	A.V.B. Phadake Vidyalaya	2017	92.4%

Projects

- **Efficient Data Selection in Collaborative ML** (R & D Project)
  (Guide: Prof. Arjun Bhagoji , Jan'25 - ongoing)
  - ○ Improved training reliability and performance in collaborative machine learning settings.
  - ○ Refactored the codebase for better modularity and integrated Vision Transformers (ViTs).

- **Robust 2D Direct Preference Optimization (2D-DPO)** (Course Project)
  (Guide: Prof. Ganesh Ramakrishnan , Feb'25 - May'25)
  - ○ Proposed a robust version of 2D-DPO to improve LLM alignment under noisy human feedback.
  - ○ Developed theoretical proofs and ran empirical tests to validate robustness.
  - ○ Demonstrated improved consistency across different preference noise scenarios.

- **CLIP Implementation from Scratch** (Course Project)
  (Guide: Prof. Preethi Jyothi , Aug'24 - Dec'24)
  - ○ Implemented the CLIP model architecture from scratch using PyTorch.
  - ○ Trained and validated on the Flickr30k dataset for image-to-text and text-to-image retrieval tasks.
  - ○ Learned and evaluated cross-modal embeddings and similarity scoring for retrieval.

Work Experience

- **System Administrator, CMInDS, IIT Bombay** *(Oct 2024 – Present)*
  - ○ Managing department servers and compute infrastructure.

- **Engineering Intern, JNPT (Jawaharlal Nehru Port Trust)** *(Feb 2021 – Mar 2021)*
  - ○ Worked on automation and internal troubleshooting.
  - ○ Gained experience in software/hardware maintenance.

FIELDS OF INTEREST

- Computer Vision & Adversarial ML

TECHNICAL SKILLS

- **Languages** (C, C++),**Database** (MySQL) **Script** (Python, Shell), **Tools** (Slurm, LaTeX, PyTorch, Git).

STRENGTHS

- Problem-solving, team leader, adaptable, hardworking,.

EXTRA-CURRICULAR ACTIVITIES

- NSS Volunteer (2020 – 2022)

- Hobbies: Drawing, Reading, Trekking