JAISIDH SINGH

✉ E-mail in LinkedIn ⌂ Website ○ GitHub

EDUCATION

University of Tübingen Tübingen, Germany
MSc in Machine Learning (German grade: 1.6) 2024 - Present

Indian Institute of Technology, Jodhpur Jodhpur, India
B.Tech in AI and Data Science 2020 - 2024

EXPERIENCE

Tübingen AI Center Sept - Present
With Peter Gehler
Working on creating LangGraph agentic systems of increasing complexity and delivering tutorials on LangGraph agents at research and industrial venues like GCPR & ARENA36.

ELLIS Institute, Tübingen Jan-May 2025
With Antonio Orvieto
Worked on parameter-predictors for efficient multimodal alignment. Published at EMNLP 2025 after building on our ICLR WSL Workshop 2025 work.

Trusted AI Lab, IIT Jodhpur Winter 2022, July 2023 - May 2024
With Mayank Vatsa, Richa Singh
Analysed StyleGAN2's latent space to profile identity leakage, published at AAAI Student Abstracts 2023 and WACV 2024 — and, developed CC-Neg, a multimodal dataset to benchmark improve negation understanding in CLIP, published at WACV 2025.

Bosch Research, Bengaluru Summer 2022, May 2023 - Jan 2024
With Amit Arvind Kale, Sonam Singh
Developed modular plug-and-play image retrieval pipelines for internal experiments — and, automated intepretable failure discovery in semantic segmentation models.

PUBLICATIONS

1. **(Almost) Free Modality Stitching of Foundation Models 2025 Main**
   Jaisidh Singh, Diganta Misra, Boris Knyazev, Antonio Orvieto
   Empirical Methods in Natural Language Processing (ENMLP) 2025, International Conference on Learning Representations (ICLR) WSL Workshop 2025

2. **Learning the Power of "No": Foundation Models with Negations Main**
   Jaisidh Singh*, Ishaan Shrivastava*, Richa Singh, Mayank Vatsa, Aparna Bharati
   Winter Conference on Applications of Computer Vision (WACV) 2025

3. **Automatic Discovery and Assessment of Interpretable Systematic Errors in Semantic Segmentation**
   Jaisidh Singh, Sonam Singh, Amit Arvind Kale, Harsh K Gandhi
   arXiv preprint

4. **SynthProv: Interpretable framework for profiling identity leakage**
   Jaisidh Singh, Harshil Bhatia, Mayank Vatsa, Richa Singh, Aparna Bharati
   Winter Conference on Applications of Computer Vision (WACV) 2024, Association for Advancement in Artificial Intelligence (AAAI) Student Abstracts 2023

FELLOWSHIPS, AWARDS, & RECOGNITIONS

Konrad Zuse School (ELIZA) Fellowship for Master's students 2025-2026
Konrad Zuse School (ELIZA) Fellowship for Master's students 2024-2025
Rank 6428 in JEE Mains 2020, 3214 in JEE Advanced 2020.
SOF awarded laptop for top regional ranks in Olympiads (2011).

Talks & Presentations

Tutorial on AI Agents, LangGraph, & MCP
GCPR Day 1 — 🌐 Webpage

(Almost) Free Modality Stitching of Foundation Models
Cohere Labs — ▶️ YouTube video 🔗 Slides

Tutorial on Continuous PDE forecasting with INRs
Presentation for Physics-informed ML Seminar @ Uni-Tübingen 🌐 Webpage

Learning the Power of "No": Foundation Models with Negations
WACV 2025 — ▶️ Video 🔗 Poster

SynthProv: Interpretable Framework for Profiling Identity Leakage
WACV 2024 — 🔗 Slides 🔗 Poster

Skills

Languages: English (Fluent + Professional), Hindi (Native), Punjabi (Native)
Research interests: Deep learning, efficiency, foundation models
Programming languages: Python, LaTeX, JavaScript, Dart, Bash, C++
ML frameworks: PyTorch, JAX/FLAX, NumPy
SWE tools: Selenium, ReactJS, NodeJS, ExpressJS, Flutter, Git, GraphQL

Projects

`lora-clip`
Python library that cleanly wraps LoRA-layer insertion into CLIP.

`pytorch-mixtures`
Minimalist and fast Python library for sparse (top-k and expert-choice) and soft mixture of experts in PyTorch.

`quick-match`
A fast and easy command-line tool for using SOTA face-matchers. Supports ArcFace, SphereFace, ElasticArcFace, and FaceNet.

Extra-curricular

Student Guide
Student Well-being Committee, IIT Jodhpur
Mentored 10 students personally and professionally, and worked with a team of 45 to handle 500 students.

Core member
Music ociety, Quiz Society, Literature Society, DevlUp Labs IIT Jodhpur
Seasoned guitarist, bassist, vocalist, and avid reader. Performed at cultural events like Inter-IIT Cultural Meet 2023 & 2024, Ignus 2023, etc. Assumed collaborative and leadership roles in coordinating activities with juniors.