

Vaibhav Balloli

Ph.D. student
University of Michigan
Ann Arbor, MI

✉ balloli.vb@gmail.com
🏠 vballoli.github.io
🎓 [Semantic Scholar](#)
🌐 [vballoli](#)

EDUCATION

University of Michigan, Ann Arbor

2023 - Present

Ph.D. Candidate, M.S. in Computer Science and Engineering

Advisor: [Prof. Elizabeth Bondi-Kelly](#)

GPA: 4.04/4.0. Courses: Reinforcement Learning Theory, NLP, HCI, AI, Causality and ML, Advanced Data Mining

Research: Design human-centered, safe, multi-agent human-AI systems that empower human expertise to address societal challenges

BITS Pilani, Hyderabad Campus

2016 - 2020

B.E in Electronics and Communication Engineering

RESEARCH EXPERIENCE

Microsoft Research India

June 2022 - June 2023

Research Fellow

Advisors: [Dr. Akshay Nambi](#) & [Tanuja Ganu](#)

Topics: Reinforcement Learning, Large Language Models.

Projects: [Vasudha](#), [VeLLM](#): [VeLLM Press](#) - [Satya Nadella](#), [Times of India](#)

Impact: VeLLM is currently being deployed in schools across India

Microsoft Research India

June 2021 - June 2022

SCAI Research Fellow

Advisors: [Dr. Akshay Nambi](#), [Tanuja Ganu](#) & [Dr. Venkat Padmanabhan](#)

Topics: Computer Vision, Contextual Bandits, Visual Localization, End-to-End systems

Projects: [HAMS](#): [HAMS Press](#) - [Punjab News Express](#)

Impact: HAMS is successfully deployed across India - [Dashboard](#)

PUBLICATIONS

4. [Bridging the Gap: Dynamic Learning Strategies for Improving Multilingual Performance in LLMs](#)

Somnath Kumar*, **Vaibhav Balloli***, Mercy Ranjit, Kabir Ahuja, Tanuja Ganu, Sunayana Sitaram, Kalika Bali, Akshay Nambi

Topics: Large Language Models, Multilingual Evaluation, Human Feedback.

Oral presentation, COLING 2025 | [arXiv](#)

3. [Are They the Same Picture? Adapting Concept Bottleneck Models for Human-AI Collaboration in Image Retrieval](#)

Vaibhav Balloli, Sara Beery, Elizabeth Bondi-Kelly

Topics: human-AI Collaboration, Image Retrieval, Interpretability, Wildlife Conservation

IJCAI'24 Human-Centered AI Track, CV4Animals Workshop@CVPR'24 | [Code](#) | [Project](#) <5% Acceptance Rate

2. [Chanakya: Learning Tradeoffs for Adaptive Streaming Perception via Contextual Bandits](#)

Anurag Ghosh, **Vaibhav Balloli**, Akshay Nambi, Aditya Singh, Tanuja Ganu.

Topics: Object detection and tracking, Computer Vision, Multi-arm bandits

NeurIPS'23 | [Talk](#) | [Code](#)

1. Video Streaming using Scalable Video Coding over Opportunistic Networks

Abhishek Thakur, Vaibhav Balloli, Arnav Dhamija.

Topics: Delay-Tolerant Networks, Video Compression

WiSPNET'19 | Code

SELECT AWARDS AND HONORS

- Exceptional Preliminary exam (advancement to candidacy exam) 2025
- Presented poster at Society-centered AI workshop at Google, Mountain View 2025
- 2nd Place in the Google x MHacks Hackathon - \$1500 Press: Mentioned by labs.google 2024
- Press: VeLLM mentioned by Satya Nadella and featured in Times Of India, FirstPost 2024
- Selected for the Harvard/MIT - HAIST/MAIA Intro Fellowship on AI Safety 2023
- Press: HAMS Automated License Testing featured in Punjab News Express 2022
- Winner of Microsoft Global Hackathon, 2021(Future Of Edge Computing Track) 2021
- Co-founded SmartCampus which successfully managed ₹25 million in transactions 2020


SERVICE

- Conference Reviewer: IJCAI'25, ICML'25, AAMAS'25, ICLR'25 and NeurIPS'24.
- Workshop Reviewer: CV4Animals@CVPR'24, CompSust@ NeurIPS'23.

PROFESSIONAL RESPONSIBILITIES

- Editor for Michigan AI Blog 2024
- Selected as Teaching Assistant for ClimateChange.ai Summer School 2023
- Head of SmartCampus at BITS Pilani Hyderabad Campus
- Member of Automation and Robotics Club at BITS Pilani Hyderabad Campus. Organized micro-controller workshop for a group of 100 students
- Volunteer at ClimateChange.ai
- Founder and Organizer of ML Reading Group at BITS Pilani Hyderabad Campus
- Mentorship
 - Jonathan Samuel (Research Intern @ MSR -> SDE Gojek)
 - Isha Singh (Research Intern @ MSR)

SOFTWARE

1.  autogen-openaiext-client Autogen community project for working with external LLMs through OpenAI API.
2. Automated License Testing - Microsoft Research India.
Microsoft Research India
Visual SLAM, Object Detection, and Trajectory analysis.