Syed Talal Wasim

wasimtalal@gmail.com wasimsyedtalal TalalWasim
scholar.google.com/citations?user=uHySarAAAAAJ talalwasim.github.io

EDUCATION

University of Bonn **Jan 2024 – Ongoing**
Ph.D. in Computer Vision *Bonn, Germany*
- Supervisor: Professor Dr. Juergen Gall
- Working on Long-Term Multimodal Video Understanding

Universidad Autónoma de Madrid **Sep 2019 – Jun 2021**
MS Image Processing and Computer Vision *Madrid, Spain*
- Supervisor: Dr. Mathieu Salzmann (CVLAB) at EPFL
- MS Thesis: Automatic Typography Analysis on Figurative Content
- Funded by the Erasmus Mundus Joint Masters Degree (EMJMD) Scholarship Program

Habib University **Sep 2015 – Jun 2019**
BS Electrical Engineering - Minor in Computer Science *Karachi, Pakistan*
- Supervisor: Professor Dr. Abdul Basit Memon
- BS Thesis: SquadBot: A Multi-Agent Robotics Teaching and Research Platform
- Graduated with 1st position in program

Stanford University **Jun 2017 – Aug 2017**
Summer International Honors Program *Stanford, USA*
- Coursework: Technology Entrepreneurship, Leading Trends in IT, Smart Cities & Communities

WORK EXPERIENCE

Intelligent Visual Analytics Lab, Mohamed Bin Zayed University of AI **Apr 2022 – Dec 2023**
Associate Researcher *Abu Dhabi, UAE*
- Supervisor: Professor Dr. Salman Khan
- Focused on multimodal video representation learning and out-of-distribution generalization

Computer Vision Lab, EPFL **Feb 2021 – July 2021**
MS Thesis Intern *Lausanne, Switzerland*
- Supervisor: Dr. Mathieu Salzmann
- Focused on typography analysis using Transformers for both RGB and Vector images

Empathic Computing Lab, University of South Australia **Jul 2020 – Mar 2021**
Research Intern *Remote*
- Supervisor: Professor Dr. Mark Billinghurst
- Focused on Multimodal Emotion Recognition using Facial Micro-Expressions
- Including modalities such as Video, EEG and GSR

SKILLS

Research Areas: Video Understanding, Large Language Models, Vision-Language Models, Efficient Neural Architectures, Multimodal Learning, Representation Learning
Programming: Python (Advanced), C/C++ (basic), C# (basic), Java (Basic)
Common ML Tools: Pandas, Numpy, Scikit-Learn, Tensorflow/Keras, OpenCV, Pytorch
AR/VR and Game Engines: Unity 3D, HoloLens 1
Languages: English: C2 (Expert), Urdu: Native

PUBLICATIONS

1. **S. T. Wasim**, H. Suleman, O. Zatsarynna, M. Naseer, and J. Gall, "MixANT: Observation-dependent memory propagation for stochastic dense action anticipation," in *ICCV*, 2025
2. J. Yi*, **S. T. Wasim***, Y. Luo*, M. Naseer, and J. Gall, "Video-Panda: Parameter-efficient alignment for encoder-free video-language models," in *CVPR*, 2025
3. A. Shaker, **S. T. Wasim**, S. Khan, J. Gall, and F. Khan, "Groupmamba: Parameter-efficient and accurate group visual state space model," in *CVPR*, 2025
4. D. Velayudhan, A. Ahmed, M. Alansari, N. Gour, A. Behouch, T. Hassan, **S. T. Wasim**, N. Maalej, M. Naseer, J. Gall, M. Bennamoun, E. Damiani, and N. Werghi, "STING-BEE: Towards vision-language model for real-world x-ray baggage security inspection," in *CVPR*, 2025
5. A. Shaker, **S. T. Wasim**, M. Danelljan, S. Khan, M.-H. Yang, and F. Khan, "Efficient video object segmentation via modulated cross-attention memory," in *WACV*, 2025
6. H. Suleman*, **S. T. Wasim***, M. Naseer, and J. Gall, "Distillation-free scaling of large ssms for images and videos," *arxiv preprint, arxiv:2409.11867*, 2024
7. **S. T. Wasim**, M. Naseer, S. Khan, M.-H. Yang, and F. Khan, "VideoGrounding-DINO: Towards open-vocabulary spatio-temporal video grounding," in *CVPR*, 2024
8. M. Z. Yousuf, **S. T. Wasim**, S. N. Hasany, and M. Farhan, "AR-VPT: Simple auto-regressive prompts for adapting frozen vits to videos," in *VISAPP*, 2024
9. **S. T. Wasim**, K. H. Soboka, A. Mahmoud, S. Khan, D. Brooks, and G.-Y. Wei, "Hardware resilience properties of text-guided image classifiers," in *NeurIPS*, 2023
10. **S. T. Wasim***, M. U. Khattak*, M. Naseer, S. Khan, M. Shah, and F. Khan, "Video-FocalNets: Spatio-temporal focal modulation for video action recognition," in *ICCV*, 2023
11. M. U. Khattak*, **S. T. Wasim***, M. Naseer, S. Khan, M.-H. Yang, and F. S. Khan, "Learning self-regulating prompts for vision-language models," in *ICCV*, 2023
12. **S. T. Wasim**, M. Naseer, S. Khan, F. Khan, and M. Shah, "Vita-CLIP: Video and text adaptive clip via multimodal prompting," in *CVPR*, 2023
13. **S. T. Wasim**, R. Collaud, L. Défayes, N. Henchoz, M. Salzmann, and D. Ribes, "Toward automatic typography analysis: serif classification and font similarities," *Journal of Data Mining in Digital Humanities (JDMDH)*, 2023
14. N. Saffaryazdi, **S. T. Wasim**, K. Dileep, A. F. Nia, S. Nanayakkara, E. Broadbent, and M. Billinghurst, "Using facial micro-expressions in combination with eeg and physiological signals for emotion recognition," *Frontiers in Psychology*, 2022
15. **S. T. Wasim**, S. N. Hasany, K. Abbasi, H. Feroz, A. A. Ahmed, M. H. Shaikh, and M. Farhan, "Sim-to-real transfer for object detection and localization on animals," in *CV4Animals CVPR Workshop*, 2021

ACADEMIC SERVICES

- **Conference/Journal Reviewers:** CVPR, ICCV, ECCV, WACV, ACCV, NeurIPS, ICLR, ICML, AAAI, TPAMI, TNNLS, TIP, TMLR, IJCV, Pattern Recognition
- **Outstanding Reviewer at NeurIPS**

HONORS AND AWARDS

Ph.D.

- **Compute Award:** Co-authored Gauss AI Compute grant with Professor Dr. Juergen Gall for *54.0 million GPU compute hours* on the topic of *Holistic Multi-modal Egocentric Video Forecasting*.
- **Compute Award:** Co-authored EuroHPC AI Intensive access grant with Professor Dr. Juergen Gall for *1.6 million GPU compute hours* to scale our CVPR publication on *Encoder-Free Video Lanuguage Models*.
- **Compute Award:** Co-authored EuroHPC Benchmark and Regular access grants with Professor Dr. Juergen Gall for *3.0 million GPU compute hours* on the topic of *Large-Scale Open-Vocabulary Video Understanding and Anticipation*.
- **Compute Award:** Co-authored EuroHPC Benchmark and Regular access grants with Professor Dr. Ernesto Damiani for *2.5 million GPU compute hours* on the topic of *Large-Scale Robust Vision Language Models*.
- **Winter School Grant:** Full funding to attend MENA Winter School on Machine Learning 2025
- **Winter School Grant:** Full funding to attend ELLIS Winter School on Foundational Models 2024

Masters

- **Erasmus Mundus Scholarship:** Two year fully funded scholarship for MS studies
- **Summer School Grant:** Full funding to attend ETH Zurich Robotics Summer School and Symposium 2021

Bachelors

- **Dean's Medal:** For graduating with the highest CGPA in Electrical Engineering program
- **Best Capstone Award:** Awarded the best capstone project award in the Electrical Engineering program
- **Summer Program Scholarship:** Among 8 students selected for funded International Honors Program at Stanford University
- **President's Honor List:** For maintaining position on Dean's Honor List in consecutive semesters
- **Dean's Honor List:** The top 10% students in the program each semester
- **High Academic Achievement Scholarship:** Additional 10% Scholarship for the Top 3 students in the school each semester
- **Merit Scholarship:** Awarded 65% scholarship for 4 years

High School

- **Intel ISEF:** Fully funded opportunity to represent Pakistan at the Intel International Science and Engineering Fair (ISEF), 2014 in LA, California