# SYED TALAL WASIM

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# **EDUCATION**

# University of Bonn

Jan 2024 - Ongoing

Bonn, Germany

Madrid, Spain

Ph.D. in Computer Vision

• 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

• 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

• BS Thesis: "SquadBot: A Multi-Agent Robotics Teaching and Research Platform"

• Dean's and President's Honor List (All 8 semesters)

• Awarded Merit Scholarship (65% tuition) and High Academic Achievement Scholarship (10% additional per semester based on performance)

• Graduated with Dean's Medal (1st position in program) and Best Thesis Award

Intelligent Visual Analytics Lab, Mohamed Bin Zayed University of AI

# Stanford University

Jun 2017 - Aug 2017

Summer International Honors Program

Stanford, USA

• Coursework: Technology Entrepreneurship, Leading Trends in IT, Smart Cities & Communities

## WORK EXPERIENCE

Amazon

Nov~2025-Jan/Feb~2026

Incoming Applied Scientist Intern

New York, USA

- Supervisor: Dr. Stephane Laveau
- Working on fine-grained composed multimodal retrieval

## Associate Researcher

Apr 2022 - Dec 2023

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, 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. 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
- 7. **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
- 8. 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
- 9. M. U. Khattak\*, S. T. Wasim\*, M. Naseer, S. Khan, M.-H. Yang, and F. S. Khan, "Self-regulating prompts: Foundational model adaptation without forgetting," in *ICCV*, 2023
- 10. **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
- 11. **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
- 12. 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

#### AWARDS and GRANTS

## Ph.D.

- Compute Award (Jupiter Supercomputer): 54.0 million GPU compute hours for Holistic Multi-modal Egocentric Video Forecasting
- Compute Award (Leonardo Supercomputer): 1.6 million GPU compute hours for Encoder-Free Video Language Models
- Compute Award (Leonardo Supercomputer): 3.0 million GPU compute hours for Large-Scale Open-Vocabulary Video Understanding and Anticipation
- Compute Award (Leonardo Supercomputer): 2.5 million GPU compute hours for Large-Scale Robust Vision Language Models
- Winter School Grant: MENA Winter School on Machine Learning 2025
- Winter School Grant: ELLIS Winter School on Foundational Models 2024

#### Masters

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

# Bachelors

- Dean's Medal: Highest CGPA in Electrical Engineering program
- Best Thesis Award: Best capstone project in Electrical Engineering program
- Summer Program Scholarship: Stanford University International Honors Program
- High Academic Achievement Scholarship: Top 3 students in school each semester
- Merit Scholarship: 65% scholarship for 4 years

# 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