# SYED TALAL WASIM

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#### **EDUCATION**

### Universidad Autónoma de Madrid

Sep 2019 - Jun 2021

MS Image Processing and Computer Vision - CGPA - 8.78/10

Madrid, Spain

- Funded by the Erasmus Mundus Joint Masters Degree (EMJMD) Scholarship Program
- MS Thesis: Automatic Typography Analysis on Figurative Content
- Supervised by Dr. Mathieu Salzmann (CVLAB) at EPFL

ETH Zurich Jul 2021

Robotics Summer School and Symposium

Zurich, Switzerland

Karachi, Pakistan

- Highly selective program that admits 40 participants (M.S. or Ph.D. students)
- Attended a week-long intensive theoretical and practical education classes in autonomous robotics

Habib University Sep 2015 - Jun 2019

BS Electrical Engineering - Minor in Computer Science - CGPA - 3.86/4.00

- BS Thesis: SquadBot: A Multi-Agent Robotics Teaching and Research Platform
- Graduated with  $1^{st}$  position in program

Stanford University

Jun 2017 - Aug 2017

Summer International Honors Program - CGPA - 3.87/4.00

Stanford, USA

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

#### WORK EXPERIENCE

# Computer Vision Lab, Mohamed Bin Zayed University of AI

Apr 2022 - Present

Abu Dhabi, UAE

- Supervisor: Dr. Salman Khan
- Focused on multimodal supervised and self-supervised video representation learning, and out-of-distribution generalization

# Empathic Computing Laboratory, University of Auckland

Jul 2020 - Mar 2021

Research Intern

Research Assistant

Remote

- Supervisor: Dr. Mark Billinghurst
- Focused on Multimodal Emotion Recognition using Facial Micro-Expressions
- In addition to Facial Micro-Expressions, the impact of other modalities like EEG and GSR was also investigated

# Habib University

Jan 2018 - Jun 2018

Undergraduate Research Assistant

Karachi, Pakistan

- Supervisor: Dr. Muhammad Farhan
- Detection of Mitosis in Breast Cancer Histopathology Images with Deep Learning

#### **PUBLICATIONS**

- 1. 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
- 2. 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
- 3. M. U. Khattak\*, S. T. Wasim\*, M. Naseer, S. Khan, M. Shah, and F. Khan, "Learning self-regulating prompts for vision-language models," in ICCV, 2023
- 4. 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

- 5. **S. T. Wasim**, R. Collaud, L. Défayes, N. Henchoz, M. Salzmann, and D. Ribes, "Analyzing poster collections using automatic serif classification and font similarities," in *Journal of Data Mining in Digital Humanities* (*JDMDH*), 2023
- 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
- 7. 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

#### RESEARCH PROJECTS

# Efficient CNN Models for Computer Vision on FPGAs

Jan 2020 - Dec 2020

- Year-long Tutored Research Project during the MS program
- $\bullet$  Deployment of common image classification models like ResNet50 and VGG19 in low-bit to binary quantized format on FPGA
- Comprehensive work on implementing Skip-Connections in both Streaming Architectures and Matrix/Vector Processors

#### **SKILLS**

**Programming:** Python (Advanced), C/C++ (Intermediate), C# (Intermediate), 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), Spanish: A1.1 (Elementary), Urdu: Native

#### HONORS AND AWARDS

#### Graduate

• Erasmus Mundus Scholarship: Two year fully funded scholarship for MS studies

# Undergraduate

- 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