Hashmat Shadab MALIK

Profile →
hashmat.malik@mbzuai.ac.ae →
Google Scholar →
GitHub →

EDUCATION

2023 - Present | PhD. in Computer Vision

Mohamed bin Zayed University of Artificial Intelligence (MBZUAI)

GPA: 3.90/4.0, First Class Honours.

2021 - 2022 | Master of Science in COMPUTER VISION

Mohamed bin Zayed University of Artificial Intelligence (MBZUAI)

Thesis: "Adversarial Pixel Restoration as a Pretext Task for Transferable Perturbations."

GPA: 4.0/4.0, First Class Honours.

2014 - 2018 Bachelor of Technology in Electronics and Communication Engineering

National Institute of Technology, Srinagar (NIT)

Thesis: "Channel Estimation for Wireless Communication systems, using least-square method."

GPA: 8.48/10.0, First Class Honours.

WORK EXPERIENCE

Jan. 2021 - Present | Graduate Research Assistant Intelligent Visual Analytics Lab (IVAL), MBZUAI, Abu Dhabi, UAE Working on evaluating robustness of uni-modal and multi-modal vision-based models.

Mar.2019 - Jun.2019 Research Intern

Robotics Research Center - IIIT Hyderabad, India

Worked on Motion segmentation and estimating depth from multiple views for au-

tonomous navigation of cars using deep network based framework.

Jul.2018 - Mar.2019 | Computer Vision Engineer

Cingularity TEC India Pvt. Ltd., Bangalore, India

Built Computer Vision Systems involving License Plate Recognition, Vehicle Recognition

and Counting vehicles in malls and parking lots.

Jul.2018 - Mar. 2019 Project Assistant

Computational Intelligence Lab- IISc, India

Developing frameworks using deep convolutional neural networks for classification/detection of diseases in Sugarcane. Implementing models to detect different type

of damages in vehicles.

RESEARCH INTERESTS

Intrigued by the vulnerability of deep neural networks in both i.i.d and non-i.i.d settings, I am focused on designing methods and benchmarks to expose their limitations and uncover deeper insights into their weaknesses.

SELECTED PUBLICATIONS

9 GOOGLE SCHOLAR

Hierarchical Self-Supervised Adversarial Training for Robust Vision Models in Histopathology (Under Review). [Paper] [Code]

Robust-LLaVA: On the Effectiveness of Large-Scale Robust Image Encoders for Multi-modal Large Language Models (Under Review). [Paper] [Code]

Towards Evaluating the Robustness of Visual State Space Models. Accepted in Workshop of Adversarial Machine Learning on Computer Vision: Foundation Models + X at CVPR 2025. [Paper] [Code]

ObjectCompose: Evaluating Resilience of Vision-Based Models on Object-to-Background Compositional Changes. Accepted at Asian Conference on Computer Vision (ACCV 2024-Oral). [Paper] [Code]

On Evaluating Adversarial Robustness of Volumetric Medical Segmentation Models. Accepted at The British Machine Vision Conference (BMVC 2024). [Paper] [Code]

Adversarial Pixel Restoration as a Pretext Task for Transferable Perturbations. Accepted at The British Machine Vision Conference (BMVC 2022-Oral). [Paper] [Code]

Object Detection in Aerial Images: What Improves the Accuracy?, Accepted for WIUT-UoW Computing Conference (2022) [Paper]

ACADEMIC SERVICE

REVIEWER ECCV, BMVC, WACV, CVPR, MICCAI

HONORS AND AWARDS

- DEC. 2024 Secured Best Student Paper Honorable Mention Award at ACCV 2024.
- JAN. 2023 **PhD** Awarded Research Scholarship by Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) for the period of four years.
- JAN. 2021 **MSc.** Awarded Postgraduate Research Scholarship by Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) for the period of two years.
- JUN. 2018 Qualified National Level Graduate Aptitude Test in Engineering(GATE).
- Jun. 2018 Among top 15 percentile of the class of Bachelors in Electronics and Communication.
- JUN. 2014 Qualified National Level Joint Engineering Entrance(JEE) for admission into NITs.
- Jun. 2013 15th Position in the State Level Board Exam of grade XII.

COMPUTATIONAL SKILLS

- PYTHON EXPERT KNOWLEDGE- I am extensively using python to build novel machine learning algorithms for the last few years.
- Pytorch is usually my default choice due to its dynamic nature and object-oriented graph design approach.
 - KERAS I have used Keras with Tensorflow before and have gained decent familiarity with it.
- MATLAB Most of my Bachelor projects have been done using Matlab.
 - C I scored A grades in the language in my B.Tech course.

REFERENCES

Dr. Salman Khan (Primary Supervisor)

Associate Professor at the Mohamed bin Zayed University of Artificial Intelligence (MBZUAI), salman.khan@mbzuai.ac.ae, Personal Web

Dr. Fahad Shahbaz Khan (Secondary Supervisor)

Professor at the Mohamed bin Zayed University of Artificial Intelligence (MBZUAI), | fahad.khan@mbzuai.ac.ae, | Personal Web

Dr. Muzammal Naseer

Assistant Professor at Khalifa University,