

kheyrollah.nouri1334@gmail.com

Dear [Dr. Name / Prof. Name / Hiring Manager],

I hope this message finds you well.

I am writing to express my interest in the [position name] in your group. I recently graduated with an MSc in Computer Vision from MBZUAI and have conducted research on unsupervised video anomaly detection, including publications at CVPR and WACV 2024. I believe my academic background and project experience make me a strong candidate for your team.

Attached is my CV for your review. I would be thrilled to contribute to your work and am happy to provide further details or schedule a meeting at your convenience.

Thank you for your time and consideration.

Best regards,

Anas Al-Lahham

■ [anas.allaham97@outlook.com](mailto:anas.allaham97@outlook.com)

■ [anasal-lahham.github.io](https://github.com/anasal-lahham)

Dear [Hiring Committee / Professor / Research Lead],

I am writing to express my strong interest in the [Position Title / Research Assistant Role / PhD Position] at [Institution or Lab Name]. With a solid academic background in computer vision and a deep focus on video anomaly detection, I am confident that my skills and research experience align well with the goals of your team.

I recently completed my Master's in Computer Vision at Mohamed Bin Zayed University of Artificial Intelligence, where I worked on cutting-edge research projects including A Coarse-to-Fine Pseudo-Labeling (C2FP) for Unsupervised Video Anomaly Detection and Collaborative Learning of Anomalies with Privacy (CLAP), both published in top-tier venues (WACV'24 and CVPR'24), reflect my ability to design robust solutions for real-world problems such as surveillance video analysis and federated learning under privacy constraints.

In addition to my academic work, I have gained practical experience as a research assistant at MBZUAI, working on projects in aerial video monitoring and renewable energy applications using digital twins. My technical skills include Python, PyTorch, and OpenCV, which I have used extensively in implementing and evaluating deep learning models.

I am eager to contribute to innovative AI research, collaborate in a multidisciplinary environment, and further develop my expertise in computer vision. I am especially drawn to your work on [specific project or research direction], which strongly resonates with my academic interests and long-term goals.

Thank you for considering my application. I would be honored to discuss how I can contribute to your research.

Sincerely,

Anas Al-Lahham

■ [anas.allaham97@outlook.com](mailto:anas.allaham97@outlook.com)

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# ANAS AL-LAHHAM

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## EDUCATION

### Mohamed Bin Zayed University of Artificial Intelligence (MBZUAI)

Aug. 2021 - May 2023

MASTERS OF SCIENCE IN COMPUTER VISION (FULL RIDE SCHOLARSHIP)

UAE

- **GPA:** 3.68/4.0
- **Major courses:** Human and Computer Vision, Visual Object Recognition and Detection, Geometry for Computer Vision, Digital Twins.
- **Thesis:** "A Coarse-to-Fine Pseudo-Labeling (C2FPL) Framework for Unsupervised Video Anomaly Detection"

### King Saud University (KSU)

Sept. 2015 - May 2020

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (FULL RIDE SCHOLARSHIP)

Saudi Arabia

- **GPA:** 4.79/5.0
- **Ranked 1<sup>st</sup> among students graduated in my major**
- **Thesis:** "Sky-Imager Based Forecast of Solar Irradiance Using Machine Learning"

## PUBLICATIONS

- **Al-Lahham, A.**, Zaheer, M. Z., Tastan, N., & Nandakumar, K. (2024). Collaborative Learning of Anomalies with Privacy (CLAP) for Unsupervised Video Anomaly Detection: A New Baseline. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (pp. 12416-12425).
- **Al-lahham, A.**, Tastan, N., Zaheer, M. Z., & Nandakumar, K. (2024). A Coarse-to-Fine Pseudo-Labeling (C2FPL) Framework for Unsupervised Video Anomaly Detection. In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (pp. 6793-6802).
- K. Abutalip\*, **A. Al-lahham\***, and A. E. Saddik, "Digital Twin of Atmospheric Environment: Sensory Data Fusion for High-Resolution PM2.5 Estimation and Action Policies Recommendation". *IEEE Access*, (2023).
- **A. Al-lahham**, O. Theeb, K. Elalem, T. Alshawhi, and S. Alshebeili, "Sky imager-based forecast of solar irradiance using machine learning". *Electronics*, 9(10), (2020).

## RESEARCH INTERESTS

**Computer Vision, Video Anomaly Detection, Early Action Prediction, Renewable Energy**

## PROJECTS

### (CVPR'24) Collaborative Learning of Anomalies with Privacy (CLAP) for Unsupervised Video Anomaly Detection: A New Baseline

Sep. 2023 - Feb 2024

- We propose a new baseline for anomaly detection capable of localizing anomalous events in complex surveillance scenarios in a fully unsupervised fashion without any labels on a privacy-retaining distributed participant-based training configuration. To the best of our knowledge, is the first rigorous attempt to tackle video anomaly detection in the federated learning setting.
- We propose three new evaluation protocols to extensively evaluate CLAP on various scenarios of collaborations and data availability. Moreover, to carry out these evaluations, we modify the existing VAD datasets to create new splits.

### (WACV'24) A Coarse-to-Fine Pseudo-Labeling (C2FPL) Framework for Unsupervised Video Anomaly Detection

Aug. 2022 - Oct 2023

- We propose a novel anomaly detection framework that is independent of the video length
- We propose a new technique for creating and refining feature-level pseudo-labels using weak supervision
- We extend the pseudo-labeling method to completely eradicate the need of having training labels (**Published at WACV 2024**)

## Sensory Data Fusion for High-Resolution PM<sub>2.5</sub> Estimation and Action Policies Recommendation\*

Feb. 2022 - Sep. 2022

- The project aims to build a digital twin (DT) of an atmospheric environment by fusing remote sensing and observational data
- Estimated values of PM<sub>2.5</sub> obtained from an ensemble model are used to provide recommendations for decreasing the agglomeration levels.
- Published an academic journal paper regarding the proposed project (**Published: 12 January 2023**).

## Sky-Imager Based Forecast of Solar Irradiance Using Machine Learning

Sept. 2019 - Oct. 2020

- This project presents a new computationally efficient machine learning algorithm for forecasting solar irradiance for durations from 1 hour up to 4 hours using sky images.
- Compared to state-of-the-art computationally heavy algorithms, our approach achieves competitive results with much less computational complexity for both nowcasting and forecasting up to 4 hours ahead of time.
- Published an academic journal paper regarding the proposed approach (**Published: 16 October 2020**).

## EXPERIENCE

### MBZUAI

RESEARCH ASSISTANT

Projects: 1) Automated Monitoring of Photovoltaic Plants using Aerial Videos 2) **C2FPL** 3) **CLAP**

Jul. 2023 - Present

UAE

### MBZUAI

TEACHING ASSISTANT FOR MATHEMATICAL FOUNDATIONS OF ARTIFICIAL INTELLIGENCE

Aug. 2022 - Dec 2022

UAE

### YOUSSEF MARROUN CONT.CO (YMCO)

ELECTRICAL PROJECT ENGINEER

Jun. 2019 - Aug. 2019

Saudi Arabia

- **Internship** at YMCO on DALLAH hospital west expansion project. Worked with the electrical engineering team on reviewing and verifying different electrical systems layouts using AutoCAD, such as power, lighting, structure cable.

## TECHNICAL STRENGTHS

**Software & Tools** MATLAB, AutoCAD  
**Languages** Python (Intermediate), C++ (Basic)  
**Frameworks** PyTorch, OPENCV, Tensorflow

## ACADEMIC ACHIEVEMENTS

**\*Top 3 Teams in NASA Airathon competition: Predict Air Quality** 2022

**King Saud University Distinguished and Talented Students Program Student Member** 2015

## REFERENCES

<b>Karthik Nandakumar</b>	Associate Professor of Computer Vision	<a href="mailto:karthik.nandakumar@mbzuai.ac.ae">karthik.nandakumar@mbzuai.ac.ae</a>
<b>Fahad Shahbaz Khan</b>	Professor of Computer Vision	<a href="mailto:fahad.khan@mbzuai.ac.ae">fahad.khan@mbzuai.ac.ae</a>
<b>Abdulmotaleb El Saddik</b>	Professor of Computer Vision	<a href="mailto:a.elsaddik@mbzuai.ac.ae">a.elsaddik@mbzuai.ac.ae</a>