Tufail Sajjad Shah Hashmi



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https://scholar.google.com/citations?user=e_1OgfAAAAAJ&hl=en&oi=ao

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CAREER OBJECTIVE

To secure a research role for collaboration with interdisciplinary teams where we explore the emerging trends of **Artificial Intelligence** through rigorous research and practical implementation to address real world problems.

RESEARCH INTERESTS

Artificial Intelligence (AI), Computer Vision, Smart Farming, Smart Agriculture, Internet of Things (IoT).

EDUCATION

Institute	Degree	Duration	Area	Academic Distinction
NATIONAL UNIVERSITY OF SCIENCES AND TECH- NOLOGY, ISLAMABAD, PAKISTAN	Master of Science in Computer Science (Honors: Magna Cum Laude)	2018-2021	Thesis: Automated detection of weapons in surveillance videos	First Class Honors
COMSATS INSTITUTE OF INFORMATION TECHNOLOGY, ISLAMABAD, PAKISTAN	Bachelor of Science in Software Engineering (Honors: Magna Cum Laude)	2013-2017	Final Year Project: Secret communica- tion based on Image Steganography	First Class Honors

PROFESSIONAL EXPERIENCE

1. Ministry of Federal Education and Professional Training

• **Period:** Apr 2025 to Present

• Position: Core Team Member / Master Trainer

Responsibilities

- Served as a core team member, leading and overseeing the successful execution of the project.
- Prepared and conducted screening tests to evaluate candidates' skills and potential.
- Verified test results using modern tools and the latest technologies to ensure accuracy and transparency.

- Conducted interviews with shortlisted candidates to assess technical and interpersonal competencies.
- Delivered professional training to selected candidates, focusing on enhancing their technical proficiency and industry readiness.

2. Dynamic Leo Information Technology LLC

• **Period:** Sep 2024 to Present

• Position: Chief Technology Officer

Responsibilities

- Define and lead the company's long-term technology road map.
- Align the technology strategy with business goals and market trends.
- Oversee the development of new digital products, platforms, or services.
- Promote innovation, research, and experimentation within the tech team.

3. Institute of Space Technology, Islamabad, Pakistan

• **Period:** Sep 2021 to Present

• **Position:** Lecturer

Responsibilities

- Teaching undergraduate courses.
- Conducting practicals in laboratories.
- Batch Coordination.
- Coordination of industrial visits.

4. AI and Computer Vision - iVision Lab, IST Islamabad

• **Period:** Sep 2021 to Present

• Position: Core Team Member

• Research Area: AI and Computer Vision

Responsibilities

- Supervising funded projects from different organizations and industries.
- Mentoring BS and MS students

5. Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad

• **Period:** Mar 2022 to Jul 2022

• **Position:** Lecturer

Responsibilities

- Teaching undergraduate courses.
- Conducting practicals in laboratories.

6. Apptrick Technologies

• **Period:** Mar 2021 to Aug 2021

• **Position:** Computer Vision Engineer

Responsibilities

• Implementation of OpenCV related tasks.

• Training of real-time object detection models.

• Evaluation of platform compatibility with AI applications.

7. Machine Vision and Intelligent Systems Lab, NUST Islamabad

• Period: Mar 2020 to Mar 2021

• Position: Researcher

• Research Area: AI and Computer Vision

Responsibilities

Conduction research and developing prediction models for real world scenarios

• Supervising the Research Assistants and MS students in research conduction

• Developing tools to address the models

8. Vyro, NSTP, NUST, Islamabad

• **Period:** Dec 2019 to Feb 2020

• **Position:** Android Developer

Responsibilities

• Developed Android Applications.

• Evaluation of platform compatibility with AI applications.

9. Erudite Solutions, Islamabad

• **Period:** Sep 2018 to Feb 2019

• **Position:** Software Developer Internee

Responsibilities

• Testing and validation

• Play Store Management

HONORS/ACHIEVEMENTS

- 1. Manager AI Robotics Summer Camp at IST
- 2. Faculty Patron ACM at IST
- 3. Organizer and Master Trainer of Python Explorers Workshop
- 4. Awarded Certificate of Participation in the 1st National Artificial Intelligence Seminar
- 5. Organizer at "Techno Moot" NUST (2018)
- 6. USHER at "Vision ICT 15" Comsats University (2015)
- 7. USHER at "Vision ICT 14" Comsats University (2014)
- 8. Event Coordinator at "Soft Society" Comsats University (2015-2017)
- 9. Winner of 2nd All D.I.Khan Declamation Contest (2012)
- 10. Awarded Certificate for "First Aid Training" from Red Crescent Society.

FUNDED PROJECTS

- 1. Tech Fellow program is an initiative of the Ministry of Education and Professional Training. Successfully started by **IST Islamabad Pakistan in collaboration with LearnOBots**. (~\$880,600, 2025)
- 2. Design and development of ICUBE-Qamar (ICUBE-Q). This work was supported in part by the IST Islamabad Pakistan, Space and Upper Atmosphere Research Commission (SUPARCO), and Intelligent Satellite Technology Center of Shanghai Jiao Tong University (SJTU), within the framework of Asia-Pacific Space Cooperation Organization (APSCO). (~\$692737, 2022)

RESEARCH PUBLICATIONS

- 1. N. U. Haq, M. M. Fraz, **T. S. S. Hashmi** and M. Shahzad, "Orientation Aware Weapons Detection in Visual Data: A Benchmark Dataset" in Springer Computing, 2022. (IF: 2.42)
- 2. **T. S. S. Hashmi**, N. U. Haq, M. M. Fraz and M. Shahzad, "Application of Deep Learning for Weapons Detection in Surveillance Videos," 2021 IEEE International Conference on Digital Futures and Transformative Technologies (ICoDT2), 2021, pp. 1-6, **doi:** 10.1109/ICoDT252288.2021.9441523. (WoSindexed conference)
- 3. N. U. Haq, **T. S. S. Hashmi**, M. M. Fraz and M. Shahzad, "Rotation Aware Object Detection-Model with Applications to Weapons Spotting in Surveillance Videos," 2021 IEEE International Conference on Digital Futures and Transformative Technologies (ICoDT2), 2021, pp. 1-6, **doi: 10.1109/ICoDT252288.2021.9441538.** (WoS indexed conference)
- 4. Osama Rasheed, Adam Ishaq, Muhammad Asad and **T. S. S. Hashmi**, "Multiplatform Surveillance System for Weapon Detection using YOLOv5," 2022 IEEE International Conference on Emerging Technologies (ICET). (WoS indexed conference).
- 5. Abeer Ilyas, Imama Rahmani, Sukaina Imran, **T. S. S. Hashmi**, Muhammad Nadeem Yousaf, "Deep Learning Application for Vehicle Detection through Surveillance Drones," 2024 International Conference on Electrical, Computer and Energy Technologies (ICECET).