



Tufail Sajjad Shah Hashmi

Entrepreneur | Master Trainer | CTO | Lecturer (Computer Science) | Researcher (AI & Computer Vision - iVision Lab), Institute of Space Technology, Islamabad, Pakistan.

Research interests: Computer Vision, Deep Learning, Machine Learning, AI & Data Science

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EDUCATION

2018 - 2021	MS., National University of Sciences and Technology, Islamabad, Pakistan Major: Computer Science., First Class Honors Thesis title: Automated Detection of Weapons in Surveillance Data
2013- 2017	BS., COMSATS University, Abbottabad, Pakistan Major: Software Engineering., First Class Honors Undergraduate Final Project: Image Steganography

WORK EXPERIENCE

Sept 2024	Master Trainer Ministry of Federal Education and Professional Training <ul style="list-style-type: none">➤ 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 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 skills.
Present	
Sept 2024	CTO Dynamic Leo Information Technology LLC <ul style="list-style-type: none">➤ 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.
Present	
Sept 2021	Researcher AI & Computer Vision - iVision Lab Institute of Space Technology (IST), Islamabad <ul style="list-style-type: none">➤ Conducting Research Projects➤ Mentoring Graduate Students
Present	

Sept 2021	Lecturer Institute of Space Technology (IST), Islamabad
Present	<ul style="list-style-type: none"> ➤ Teaching undergraduate core and elective courses of computer science. ➤ Conducting core courses labs of computer science. ➤ Administration work related to Industrial, Alumni and batch coordination.
March 2022	Lecturer Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad
July 2022	<ul style="list-style-type: none"> ➤ Taught undergraduate core and elective courses of computer science. ➤ Conducted core courses labs of computer science.
March 2021	Computer Vision Engineer Apptrick, Islamabad
August 2021	<ul style="list-style-type: none"> ➤ Implementation of OpenCv related tasks ➤ Training of real-time object detection models ➤ Evaluation of Platform compatibility with AI applications
March 2020	Researcher Machine Vision & Intelligent Systems Lab, NUST Islamabad
March 2021	<ul style="list-style-type: none"> ➤ 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
Dec 2019	Android Developer Vyro, NSTP, NUST, Islamabad
Feb 2020	<ul style="list-style-type: none"> ➤ Developed Android Applications
Sept 2018	Software Developer Erudite Solutions
Feb 2019	<ul style="list-style-type: none"> ➤ Testing and validation ➤ Play Store Management



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.**
(~ \$880600, 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 PROJECTS

		Undergraduate Supervision of Final Year Projects
Sept 2022		Area: Computer Vision, Machine Learning/Deep Learning & Mobile App Development.
		<ol style="list-style-type: none"> 1. "AUTOSPECT" 2. "AI powered acne detection and classification". 3. "Intellicarts (Smart Trolleys)". 4. "Vehicle detection, navigation, and tracking through UAVs.". 5. "Brain Tumor Classification". 6. "Drive Check".
Aug 2025		<ol style="list-style-type: none"> 7. "Vehicle Detection using Number Plate Recognition, Design and Formal Verification". 8. "Forgery Detection in Exams using Machine Learning/Deep Learning".
2019	2021	MS Thesis: "Automated Detection of Weapons in Surveillance Data"
2016	2017	BS Final Year Project: "Image Steganography"



Research Publications

1. 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).
2. 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)
3. 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)
4. **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. (WoS indexed conference)
5. 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)



HONORS/ACHIEVEMENTS

- **Manager / Organizer** AI & Robotics Summer Camp at IST (2022, 2023, 2024, 2025)
- **Faculty Patron** ACM at IST (2022, 2023, 2024, 2025)
- **Organizer and Master Trainer** of Python Explorers Workshop (2024, 2025)
- **Organizer and Master Trainer** of Document Image Analysis Workshop (2024)
- **Awarded Certificate** for 1ST and 2ND National Artificial Intelligence Seminar (2022,2023)
- **Awarded Certificate** of participation in International Conference (ICoDT2) (2021)
- **Senior Member** at “Saddle Club” NUST (2019, 2020)
- **Organizer** at “Techno Moot” NUST (2018)
- **Event Coordinator** at “Soft Society” Comsats University (2015-2017)
- **USHER** at “Vision ICT 14 and 15” Comsats University (2014, 2015)
- **Awarded Certificate** for “First Aid Training” from Red Crescent Society. (2013)
- **Winner** of 2nd All D.I.Khan Declamation Contest (2012)
- **Event Coordinator** at WENSAM College D.I.Khan (2010-2012)



SKILLS & CERTIFICATIONS

Python, Image processing, Opencv, Data Annotation, Data format conversion, Image scraping, Matplotlib, Jupyter Notebook, Anaconda, C++, Java, Android Development, HTML, CSS, MSOffice.

- Computer Vision - Image Basics with OpenCV and Python, Coursera Project Network.
- Computer Vision - Object Detection with OpenCV and Python, Coursera Project Network.
- Computer Vision - Object Tracking with OpenCV and Python, Coursera Project Network.
- Computer Vision: Neural Transfer Style & Green Screen Effect, Coursera Project Network.