

Zuhaib Ahmed Shaikh

Ghent, Belgium

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Education

Doctor of Philosophy – Image processing and Interpretation

Ghent University, Belgium *In progress*

Master of Engineering – Computer Systems Engineering

Quaid-e-awam University, Pakistan 2015

Bachelor of Engineering – Computer Systems Engineering

Quaid-e-awam University, Pakistan 2007

Experience

Ghent University

Ghent, Belgium

EARLY-STAGE RESEARCHER – IMAGE PROCESSING AND INTERPRETATION GROUP

Sep. 2018 - Present

- Focused on leveraging **AI** and **sensor fusion** techniques to assist systems for better pedestrian detection & tracking
- Engineered and implemented **deep neural networks** for **object detection** in thermal and color images
- Applied techniques in **machine learning**, **image processing** and **transfer learning** to achieve high-performance
- **Supervision** of research and engineering projects for master programs in the field of Computer Vision
- Conducted a few **labs** for master and bachelor courses

Quaid-e-awam University

Nawabshah, Pakistan

ASSISTANT PROFESSOR – COMPUTER SYSTEMS ENGINEERING DEPARTMENT

Jan. 2016 - Sep. 2018

- **Supervision** of research and engineering projects for master and bachelor programs – Computer Systems Engineering
- Conducted lectures of several bachelor courses

Quaid-e-awam University

Nawabshah, Pakistan

LECTURER – COMPUTER SYSTEMS ENGINEERING DEPARTMENT

Jan. 2008 - Jan. 2016

- **Supervision** of engineering projects for bachelor programs – Computer Systems Engineering
- Conducted lectures of several bachelor courses

eWorld ISP

Karachi, Pakistan

TECHNICAL SUPPORT EXECUTIVE – NETWORK OPERATIONS

Nov. 2007 - Jan. 2008

- **Technical support** towards clients
- Network troubleshooting and maintenance

Skills

Scientific expertise Computer Vision – Image Processing – Machine Learning

Languages Python (6+ years), C/C++ (10+ years), MATLAB (7+ years)

Computer Vision OpenCV, TensorFlow, Keras, Pytorch, Scikit-learn, Scipy, dlib and Tesseract OCR

SoC boards Arduino, Raspberry pi and PYNQ-Z

Web development PHP, HTML, CSS, Javascript and SQL

Software MIT app developer, VM-ware, Proteus, SQL server, MySQL, Git, Latex

Platforms Linux and Microsoft Windows

Selected Publications

1. Probabilistic model for sensor fusion and data association in pedestrian tracking, IEEE Sensors Journal, 2023.
(Under-review)
2. Probabilistic fusion for pedestrian detection from thermal and color images, MDPI Sensors, vol. 22, no. 22, 2022.
3. “Automatic annotation of pedestrians in thermal images using background/foreground segmentation for training deep neural networks”, IEEE Symposium Series on Computational Intelligence, Australia, 2020.
4. “A Hybrid Technique for Copy-Move Forgery Detection”, 3rd International Conference on Computer and Communication Systems, Japan, 2018.
5. “Machine Learning Based Number Plate Detection and Recognition”, International Conference on Pattern Recognition Applications and Methods, Italy, 2016.