Saqib Nazir

Personal Information

Nationality:
Pakistani

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Research Interests

- Computer Vision and Machine Vision
- Image Processing
- Deep Learning and advanced Machine Learning Algorithms

Languages

- English – C1
- Spanish – A1
- Urdu – Native
- Punjabi – Native

Education

Research Assistant and PhD student - 2021 to 2023 (expected)
University POLITEHNICA of Bucharest (UPB), Bucharest, Romania
- Research Assistant and PhD student, University POLITEHNICA of Bucharest (UPB), CEOSpace Tech. Bucharest, Romania.
- Early Stage Researcher in the frame of EU Marie Skłodowska-Curie innovative training network project MENELAOS-NT.

Visiting Researcher – Feb 2022 to Jul 2022
Ingeniería INSITU University of Vigo, Spain
- Research secondment in the frame of the EU Marie Skłodowska-Curie innovative training network project MENELAOS-NT.
- Research focus: Development of iDFD: A Dataset Annotated for Depth and Defocus.

Visiting Researcher – Sep 2021 to Dec 2021
CiTiUS, University of Santiago De Compostela, Spain
- Research secondment in the frame of the EU Marie Skłodowska-Curie innovative training network project MENELAOS-NT.
- Research focus: Development of 2HDED:NET for joint Depth Estimation and Image Deblurring from a Single out-of-focus Image.

Master of Science (MSc) – 2017 to 2020
COMSATS University Islamabad, Pakistan
- Computer Vision, Deep Learning, Machine Learning, Cloud Fog Computing.
- Thesis Title: Generative Adversarial Networks for Enhancing Low-Dose CT scans.

Bachelor of Science (BSc) - 2012 to 2016
COMSATS University Islamabad, Pakistan
- Thesis Title: National Health Service (NHS) a centralized web system for Pakistan.

Work Experience

Research Assistant at CEOSpace Tech Lab - 2021 – till present
University POLITEHNICA of Bucharest (UPB), Bucharest, Romania
- Working as Research Assistant at CEOSpaceTech. Under MENELAOS-NT Project for "Deep Depth from Defocus (Deep DFD) for near range and in-situ 3D exploration", ([ESR5](#)). A Deep Learning approach for Monocular Depth Estimation. Development of novel Deep Learning model for the improvement of depth estimation.

MIDL-NCAI-HEC– Sep 2018 to Feb 2020
COMSATS University Islamabad, Islamabad Pakistan
- For my Master's thesis, I worked on a project in collaboration with Medical Imaging and Diagnostic Lab (MIDL) affiliated with National Center of Artificial Intelligence (NCAI) under Higher Education Commission (HEC) of Pakistan.

Web Developer – Feb 2016 to Sep 2017
FrizCon & F3Tech Web Solution, Islamabad Pakistan
- After my Bachelor's degree I worked as a junior web developer at two companies FrizCon and F3Tech, using PhP, WordPress, HTML.

Fellowships, Awards, and Certificates

- **MSCA Doctoral Scholarship:** from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 860370, MENELAOS-NT Project (2020-2023).
- **PEEF Scholarship:** for Master's Level Education. I was awarded PEEF scholarship at COMSATS University Islamabad for my Master degree.
- **Fully Funded Scholarship:** for Bachelors Degree at COMSATS University Islamabad.
- Certificate of the **8th International School on Deep Learning 2021** summer school, Las Palmas de Gran Canaria, Spain.

Publications (50 citations on Google Scholar)

Selected Journal Papers

- **Nazir, Saqib,** L. Vaquero, M. Mucientes, V. M. Brea and D. Coltuc, "*Depth Estimation and Image Restoration by Deep Learning from Defocused Images*." IEEE Transactions on Computational Imaging, vol. 9, pp. 607-619, 2023.

Selected Conference Papers

- **Nazir, Saqib**, Cristian Damian, and Daniela Coltuc. "*Self-supervised Defocus Map Estimation and Auxiliary Image Deblurring Given a Single Defocused Image*." Accepted In Digital Image Computing: Techniques and Applications (DICTA), Port Macquarie, New South Wales, Australia, 2023.

- **Nazir, Saqib**, Zhouyan Qiu, Daniela Coltuc, Joaquín Martínez-Sánchez, and Pedro Arias. "*iDFD: A Dataset Annotated for Depth and Defocus*." In Scandinavian Conference on Image Analysis, pp. 67-83. Cham: Springer Nature Switzerland, 2023.

- **Nazir, Saqib**, Lorenzo Vaquero, Manuel Mucientes, Víctor M. Brea, and Daniela Coltuc. "*2HDED: Net for Joint Depth Estimation and Image Deblurring from a Single Out-of-Focus Image*." In 2022 IEEE International Conference on Image Processing (ICIP), pp. 2006-2010. IEEE, 2022.

- **Nazir, Saqib**, and Daniela Coltuc. "*Edge-preserving smoothing regularization for monocular depth estimation*." In 2021 26th International Conference on Automation and Computing (ICAC), pp. 1-6. IEEE, 2021.

Research Projects and Grant Proposal Experiences

- **MENELAOS-NT – Multimodal Environmental Exploration Systems - Novel Technologies,** European Training Network (ETN) H2020-MSCA-ITN project (Grant No. 860370), Role: Early Stage Researcher (ESR 5), Project goal: The project applies Novel Technologies to realize multimodal – multi sensor data fusion to optimally combine the information, delivered by different sensors (in-situ/remote, optical/non optical) on different scales, with different resolutions and with different reliability, 2019-2024

Skills

Computer Skills

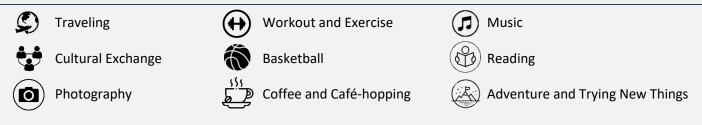- **Programming Languages:** Python (PyTorch, TensorFlow), MATLAB, C++

Other Skills

- Team-working Spirit
- Multi-tasking
- Problem Solving
- Responsible and Reliable
- Leadership and Management
- Communicative
- Motivated and Determined
- Self-learner
- Adaptive and Flexible

Hobbies and Interests

- Traveling
- Workout and Exercise
- Music
- Cultural Exchange
- Basketball
- Reading
- Photography
- Coffee and Café-hopping
- Adventure and Trying New Things

References

Prof. Daniela Coltuc - PhD thesis Supervisor

- Full Professor of Electronics, telecommunications and information technology in the University Politehnica of Bucharest, Romania
- CEOSpaceTech Research Center for Spatial Information
- *Address:* No. 7 Gheorghe Polizu str., Building P, 1st. floor 011061, Sector 1, Bucharest
- *Email:* daniela.coltuc@upb.ro

Prof. Mihai Datcu- PhD thesis Supervisor

- German Aerospace Center (DLR), Earth Observation Center, Remote Sensing Technology Institute
- Full Professor of Electronics, telecommunications and information technology in the University Politehnica of Bucharest, Romania
- CEOSpaceTech Research Center for Spatial Information
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- *Email:* mihai.datcu@dlr.de