

NIKOLAOS ZIOULIS

Research Scientist and Engineer

Ermi 9 | Pylaia | 55535 | Thessaloniki | Greece

✉ nzioulis@gmail.com
🐙 [zokin @ GitHub](#) - [VCL3D @ GitHub](#)
🔗 [Nikolaos Zioulis @ Google Scholar](#)
🌐 [Nikolaos Zioulis @ LinkedIn](#)
☎ (+30) 2310 – 649784
📱 (+30) 6972217169

A research engineer working at the intersection of computer graphics, computer (3D) vision and machine learning technologies with a focus on immersive / emerging media and live realistic tele-presence technologies spanning across the XR spectrum.

Experience

Oct 13 - now

Centre for Research and Technology Hellas, **Information Technologies Institute**,
Visual Computing Lab, Thessaloniki, Greece.
Research Associate

Education

Jun 12

Aristotle University of Thessaloniki, School of Electrical and Computer Engineering,
Thessaloniki, Greece.
Diploma in Electrical & Computer Engineering (Bachelor & Master)

Skills

Computer Graphics

OpenGL
Glew/Glfw



GLSL
OptiX



Blender
ImGui



Intimate understanding of GPU architectures and programmable 3D rendering pipeline concepts

Computer Vision

OpenCV
Eigen



Kinect 2.0
RealSense



g2o
(nano)flann



Very experienced with mesh, point cloud and image processing algorithms.

Machine Learning

PyTorch



Caffe



TensorFlow 2



Extensive experience with state-of-the-art CNN architectures, models and training.

Software Development

C++ 11/14
CUDA/Thrust
MATLAB
Windows



Python
Unity3D
Visual Studio
Linux



C#/WPF
Boost
VS Code
Git



Solid programming foundation and real-time systems engineering.

Other Tools

MS Office
RabbitMQ



LaTeX
MeshLab



Docker
Web 2.0



Familiar with a diverse set of productivity software and other tools.

Languages

Greek



English



German



Cultivated great communication skills through heavy international project involvement
(tele-conferences, project meetings, conference participation)

Soft Skills

Excellent Listener, Dedicated & Motivated, Multi-tasking & Effective Delegation, Team Coordination,
Critical Thinking & Problem Solving

Publications

2019	Sterzentsenko, V.* , Saroglou, L.* , Chatzitofis, A.* , Thermos, S.* , Zioulis, N.* , Dumanoglou, A., Zarpalas, D. & Daras, P., “Self-Supervised Deep Depth Denoising”, IEEE International Conference on Computer Vision (ICCV). [project]
	Zioulis, N. , Karakottas, A., Zarpalas, D., Alvarez, F.& Daras, P., “Spherical View Synthesis for Self-Supervised 360° Depth Estimation”. International Conference on 3D Vision (3DV) [project]
	Karakottas, A., Zioulis, N. , Samaras, S., Ataloglou, A., Gkitsas, V., Zarpalas, D., & Daras, P., “360° Surface Regression with a Hyper-Sphere Loss”. International Conference on 3D Vision (3DV) (to appear) [project]
	Dumanoglou, A.* , Drakoulis, P.* , Zioulis, N. , Zarpalas, D., & Daras, P., “Benchmarking Open-Source Static 3D Mesh Codecs for Immersive Media Interactive Live Streaming”. IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS).
	Alvarez, F., Breitgand, D., Griffin, D., Andriani, P., Rizou, S., Zioulis, N. , ... & Phan, T. K. “An edge-to-cloud virtualized multimedia service platform for 5G networks”. IEEE Transactions on Broadcasting (TOB)
2018	Christaki, K., Apostolakis, K. C., Dumanoglou, A., Zioulis, N. , Zarpalas, D., & Daras, P., “Space Wars: An AugmentedVR Game”. International Conference on Multimedia Modeling (MMM). Best Demo Award
	Zioulis, N.* , Karakottas, A.* , Zarpalas, D., & Daras, P. “OmniDepth: Dense depth estimation for indoors spherical panoramas”. European Conference on Computer Vision (ECCV). [project]
	Alexiadis, D. S., Zioulis, N. , Zarpalas, D., & Daras, P., “Fast deformable model-based human performance capture and FVV using consumer-grade RGB-D sensors”. Pattern Recognition (PR).
	Sterzentsenko, V.* , Karakottas, A.* , Papachristou, A.* , Zioulis, N.* , Dumanoglou, A., Zarpalas, D., & Daras, P., “A low-cost, flexible and portable volumetric capturing system”. International Conference on Signal-Image Technology & Internet-Based Systems (SITIS) [project]
	Karakottas, A.* , Papachristou, A.* , Dumanoglou, A.* , Zioulis, N.* , Zarpalas, D., & Daras, P. “Augmented VR”. IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR) [video]
2017	Papachristou, A., Zioulis, N. , Zarpalas, D., & Daras, P., “Markerless structure-based multi-sensor calibration for free viewpoint video capture”, International Conference on Computer Graphics, Visualization and Computer Vision (WSCG).
	Dumanoglou, A., Griffin, D., Serrano, J., Zioulis, N. , Phan, T. K., Jiménez, D., ... & Daras, P. “Quality of experience for 3-d immersive media streaming.” IEEE Transactions on Broadcasting (TOB)
	Dumanoglou, A., Zioulis, N. , Christakis, E., Zarpalas, D., & Daras, P. “Subjective quality assessment of textured human full-body 3D-reconstructions.” International Conference on Quality of Multimedia Experience (QoMEX)
	Dumanoglou, A., Zioulis, N. , Griffin, D., Serrano, J., Phan, T. K., Jiménez, D., ... & Daras, P. “A system architecture for live immersive 3D-media transcoding over 5G networks.” IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB)
2016	Zioulis, N.* , Papachristou, A.* , Zarpalas, D., & Daras, P., “Improving Camera Pose Estimation via Temporal EWA Surfel Splatting”. IEEE International Symposium on Mixed and Augmented Reality (ISMAR)
	Alexiadis, D. S., Chatzitofis, A., Zioulis, N. , Zoidi, O., Louizis, G., Zarpalas, D., & Daras, P. “An integrated platform for live 3D human reconstruction and motion capturing”. IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
	Zioulis, N. , Alexiadis, D., Dumanoglou, A., Louizis, G., Apostolakis, K., Zarpalas, D., & Daras, P. “3D tele-immersion platform for interactive immersive experiences between remote users”. IEEE International Conference on Image Processing (ICIP) [demo]