

Roberto M. Dyke

about

Post-doc
Since 1st Dec 2022

Date of birth
27th Feb 1995

Nationality
English & Portuguese

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France

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 ORCID

languages

English (native)
Portuguese (A2)
Spanish (A2)

programming

MATLAB
C/C++
Python
L^AT_EX

occupational history

since 2022	Post-doc	Inria centre at Université Côte d'Azur, France <i>Contractually employed to conduct academic research.</i>
2020–2022	Post-doc assistant	Università della Svizzera italiana, Switzerland <i>Contractually employed to conduct academic research.</i>
2016–2021	Ph.D. student	Cardiff University, UK <i>Received a stipend until 4th Jan 2020.</i>
2013–2016	B.Sc. student	Cardiff University
2011–2013	A-Level student	Licensed Victuallers' School, UK <i>Further educational studies required for entrance to University.</i>
until 2011	Student	Whitegrove, UK & Licensed Victuallers' School

education

2016–2021	Ph.D. in Computer Vision	Cardiff University <i>Project title: High Quality 3D Geometry And Appearance Reconstruction Of Non-Rigidly Deforming Objects Using Low-Cost RGB-D Cameras.</i>
2013–2016	B.Sc. in Computer Science [First-class honns.]	Cardiff University <i>Dissertation: Automatic analysis of cliff faces from point cloud data captured using LiDAR.</i>
2011–2013	A-Level in ICT [A], Computing [B], Statistics [B]	Licensed Victuallers' School

academic experience

2023	Summer intern co-supervisor	Google Summer of Code Co-supervised a Ph.D. student for three months to contribute to the Computational Geometry Algorithms Library in collaboration with Geometry Factory.
2023	Summer intern co-supervisor	Inria centre at Université Côte d'Azur Closely supervised an L3 student for 8 weeks to develop novel feature descriptors for point cloud classification.
since 2022	Post-doc	Inria centre at Université Côte d'Azur Conducting independent research as part of the ROAD-AI project investigating Optimal Transport for Point Cloud Registration. Supervisor: Dr. Pierre Alliez, HDR
2020–2022	Post-doc assistant	Università della Svizzera italiana Conducting independent research as part of an SNSF funded project investigating Barycentric Interpolation. Supervisor: Prof. Kai Hormann
2018–2019	Summer intern co-supervisor	Cardiff University Closely supervised an undergraduate student to conduct research for 8 weeks and subsequent final year project (24 weeks), which produced a publication.

- 2017 **Academic Approval Event panel member** Cardiff University
Assisted in the examination of proposed new and modified modules and courses, from B.Sc. courses to Professional Doctorate courses.
- 2016–2019 **Postgraduate Student Representative secretary** Cardiff University
Enabled a dialogue between staff and students in the School of Computer Science through organising and helping conduct formal meetings, as well as attending a variety of University-wide focus groups and panels.
- 2016–2021 **Ph.D. student** Cardiff University
Supervisors: Prof. Yu-Kun Lai, Prof. Paul L. Rosin
- 2015 **Summer research placement** Cardiff University
Conducted 8 week supervised research project in collaboration with School of Earth and Ocean Sciences, Cardiff University. Continued project for 24 weeks as part of undergraduate studies (see *B.Sc. Dissertation* above). Supervisors: Prof. Yu-Kun Lai, Dr. Tristram C. Hales

publications

- TVC 2023 **Histogram equalization using a selective filter**
R. M. Dyke, K. Hormann
- EG 2022 **A Survey of Non-Rigid 3D Registration**
B. Deng, Y. Yao, R. M. Dyke, J. Zhang
- 3DOR 2020 **SHREC'20: Shape correspondence with non-isometric deformations**
R. M. Dyke, Y. K. Lai, P. L. Rosin, S. Zappalà, S. Dykes, et al.
- 3DOR 2020 **SHREC'20: Non-rigid Shape Correspondence of Physically-Based Deformations**
R. M. Dyke, F. Zhou, Y. K. Lai, P. L. Rosin, et al.
- GMP 2019 **Non-Rigid Registration Under Anisotropic Deformations**
R. M. Dyke, Y. K. Lai, P. L. Rosin, G. K. L. Tam
- 3DOR 2019 **SHREC'19: Shape Correspondence with Isometric and Non-Isometric Deformations**
R. M. Dyke, C. Stride, Y. K. Lai, P. L. Rosin, et al.
- arXiv 2018 **HDFD – A High Deformation Facial Dynamics Benchmark for Evaluation of Non-Rigid Surface Registration and Classification**
G. Andrews, S. Endean, R. M. Dyke, Y. K. Lai, G. Ffrancon & G. K. Tam.

teaching

- 2021–2022 **Co-lecturer** Università della Svizzera italiana
Teaching a single-semester Master's CVPR course.
- 2017–2019 **Group project supervisor** Cardiff University
Supervising undergraduate group-based projects to deliver solutions to clients.
- 2016–2020 **Teaching assistant** Cardiff University
Helped teach and prepare material in a variety of modules for both B.Sc. and M.Sc. students.
- 2011–2012 **Teaching assistant** Licensed Victuallers' School
Teaching in a primary school (under 12s) ICT and Mathematics.

other experience

2024	IJCV, Pacific Graphics Reviewer	
2023	TVCG Reviewer	
2023	IDESSAI Summer School Local co-organiser & session chair	Inria centre at Université Côte d'Azur, France
2022	IJCV Reviewer	
2021	3DOR, IJCV, C&G Reviewer	
2021	3DOR Workshop Programme co-chair & session chair	Cardiff, UK
Sept 2019	BMVC Conference Facilitator	Cardiff, UK
July 2017	BMVA Summer School Attendee—A five day intensive summer school on Computational Vision.	University of Lincoln, UK

awards

2016	EPSRC Doctoral Training Partnership Ph.D. in Computer Science A fully-funded scholarship with the objective to train the next generation of research leaders, innovators and entrepreneurs [Grant ref. EP/N509449/1].	Cardiff University
2012	William Brake award A £500.00 prize awarded for students displaying excellence in Computing.	Licensed Victuallers' School

interests

professional: geometric processing, computational vision, academic research, teaching, and project supervision. **personal:** music — guitar & piano, foreign language — currently French & Portuguese, DIY, and electronics prototyping.