

EMMANUELLE BOURIGAULT

PHD STUDENT.

EDUCATION	Department of Engineering, University of Oxford	United Kingdom
	<i>Ph.D. in Engineering</i>	Oct. 2021 - Apr. 2025
	<ul style="list-style-type: none">• Advisor: Prof. Andrew Zisserman• Research area: Computer Vision, Medical Image Analysis, Domain Adaptation, 3D Reconstruction, Computational Geometry	
	Department of Engineering, Imperial College London	United Kingdom
	<i>Msc in Translational Neurosciences - 1st class</i>	2019 - 2020
	<ul style="list-style-type: none">• Research Project: Neuron Tracking on Microscopy Images	
	Faculty of Mathematics and Physics, University College London	United Kingdom
	<i>Bsc in Mathematics/Statistics and Neuroscience - 1st class</i>	2016 - 2019
PUBLICATIONS	1. Emmanuelle Bourigault , Abdullah Hamdi, Amir Jamaludin. UKBOB: One Billion MRI Labeled Masks for Generalizable 3D Medical Image Segmentation. <i>ArXiv</i> , 2025.	
	2. Emmanuelle Bourigault , Amir Jamaludin, Andrew Zisserman. Estimating 3D Shape of Spine from 2D DXA. Oral. <i>MICCAI</i> , 2024.	
	3. Emmanuelle Bourigault , Abdullah Hamdi, Amir Jamaludin. X-Diffusion: Generating Detailed 3D MRI Volumes From a Single Image Using Cross-Sectional Diffusion Models. <i>ArXiv</i> , 2024.	
	4. Pauline Bourigault, Emmanuelle Bourigault , Danilo Mantic. Multi-Modal Information Bottleneck Attribution with Cross-Attention Guidance. <i>BMVC</i> , 2024.	
	5. Emmanuelle Bourigault , Pauline Bourigault. MVDiff: Scalable and Flexible Multi-View Diffusion for 3D Object Reconstruction from Single-View. <i>Workshop in Generative AI, CVPR</i> , 2024.	
	6. Emmanuelle Bourigault , Amir Jamaludin, Emma M. Clark, Jeremy Fairbank, Andrew Zisserman. 3D Shape Analysis of Scoliosis. Oral. <i>Shape MI Workshop, MICCAI</i> , 2023.	
	7. Emmanuelle Bourigault , Amir Jamaludin, Timor Kadir, Andrew Zisserman. Scoliosis Measurement on DXA Scans Using a Combined Deep Learning and Spinal Geometry Approach. <i>MIDL</i> , 2022.	
	8. Emmanuelle Bourigault , DR McGowan, A. Mehranian, BW Papiez. Multimodal PET/CT tumour segmentation and prediction of progression-free survival using a full-scale UNet with attention. <i>Head and Neck Challenge, MICCAI</i> , 2021.	

INTERNSHIPS	Netdevices Paris, France	2020.06 - 2020.09
	• Automate data management using AI and application to hospitals	
	Michael Hausser Lab UCL, United Kingdom	2017.03 - 2019.06
	• Develop virtual reality models for spatial navigation using Python	
	Hugo Spiers Lab UCL, United Kingdom	2018.06 - 2018.08
	• Develop spatial navigation app to detect early signs of dementia	
CONFERENCES	MICCAI Marrakech, Morocco	2024.10
	• Oral Presentation on 3D Spine Shape Estimation from 2D DXA Scan.	
	CVPR Seattle, USA	2024.06
	• Poster presentation on improving multi-view consistency in diffusion model for 3D reconstruction. Participation to workshops in Generative AI, and Vision-Language Transformers	
	MICCAI Vancouver, Canada	2023.10
	• Oral presentation on deep learning pipeline for improved understanding of spine geometry in 3D	
	ICCV Paris, France	2023.09
	• Participation to Workshops in Generative AI, Object Detection and Segmentation with Limited Labels, Natural Language Processing	
	Cotrel Symposium Paris, France	2023.09
	• Presentation on automated measurement of scoliosis on 48,384 paired data DXA-MRI from the UK Biobank to surgeons and bioengineers.	
AWARDS AND HONORS	MIDL Zurich, Switzerland	2022.08
	• Poster Presentation on scoliosis automated measurement using active learning for pseudo-label generation with limited labels.	
	MICCAI Luxembourg, France	2021.10
	• Presentation of my paper to Head & Neck Segmentation Challenge.	
	• Prize Best Student Project, SABS R3, University of Oxford	2021
	• Laidlaw Research Scholarship, University College London	2016-2019
SKILLS	Programming: Python, C++, MATLAB, R. Languages: French, English, Spanish.	
ACADEMIC SERVICES	Reviewer for: <i>ICLR, MICCAI, ECCV, BMCV, WACV</i>	