

Daniela Ivanova

POSTDOCTORAL RESEARCHER

University of Glasgow, UK

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Professional Experience

- 2026-present **Research Scientist, Centre for Data Science & AI, University of Glasgow**, Collaborating on interdisciplinary machine learning research across all colleges.
- 2025-2026 **Postdoctoral Research Assistant, School of Computing Science, University of Glasgow**, Fine-grained plankton classification, automated underwater and benthic image analysis and biodiversity monitoring.
- 2025 **Postdoctoral Research Assistant, School of Computing Science, University of Glasgow & OrthoVis**, 3D CT scan bone fracture detection in collaboration with the NHS.
- 2020-2025 **Graduate Teaching Assistant, School of Computing Science, University of Glasgow**, Delivered deep learning and computer vision courses at both undergraduate and postgraduate level.
- 2018-2021 **Software Engineer, Obashi Technology, UK**, Back- and front-end developer, designed and implemented a business asset management platform using Golang and Vue.js.
- 2016-2018 **Printing Specialist, Staples, UK**, Design and printing of bespoke wide-format goods.

Education

University of Glasgow

Scotland, UK

PHD IN COMPUTING SCIENCE

2020 - 2025

- Supervisors: Dr. John Williamson, Dr Paul Henderson
- Repurposed multimodal generative models (e.g. text-to-image diffusion models) for segmentation, in particular detection of analogue media damage.
- Collaborated on synthetic data generation, medical image segmentation, talking head generation, 3D reconstruction, video synthesis projects.
- Co-supervised Masters and junior PhD students.

University of Glasgow

Scotland, UK

BSc (HONS) IN COMPUTING SCIENCE, *First Class*

2016 - 2020

- Honours Supervisor: Dr. Paul Siebert
- Thesis title (self-defined topic): "A deep learning approach to artefact correction for photographic film", receiving an *A1 grade (highest in several years)* and multiple awards.
- Modules: Machine Learning, Deep Learning, Computer Vision, NLP, RecSys, Linear Algebra, Calculus.
- Redeveloped accessible educational games for Doorway Accessible Software Trust, a Scottish charity.

Dobri Chintulov School in Mathematics and Natural Sciences

Bulgaria

SECONDARY SCHOOL DIPLOMA

2011 - 2016

- Overall grade 6.00/6.00

Publications

PUBLISHED

- D Ivanova**, Ö Göksu, N Pugeault, 2026. *Multimodal Taxonomic Conditioning for Generative Plankton Imagery*. European Conference on Computer Vision (ECCV) Workshop on MARINE Vision.
- L Le, **D Ivanova**, N Pugeault, 2026. *Promptable Animal Pose Tracking Across Species*. European Conference on Computer Vision (ECCV) Workshop on CV4Ecology.
- Ö Göksu, **D Ivanova**, N Pugeault, 2026. *Representation-Preserving Federated Self-Supervised Learning with Foundation Models*. European Conference on Computer Vision (ECCV) Workshop on LIMIT (Oral).
- A Tragakis, M Aversa, **D Ivanova**, C Kaul, R Murray-Smith, D Faccio, P Henderson, 2026. *SceneHI: High-Resolution 3D-Consistent Scene Texturing with Controllable Illumination*. European Conference on Computer Vision (ECCV)

M de Almeida, **D Ivanova**, J Williamson, P Henderson, 2026. *Pixel-Motion: Image-to-4D Prediction for Camera-Controlled Video Synthesis*. International Conference on Pattern Recognition (ICPR).

D Ivanova, M Aversa, P Henderson, J Williamson, 2026. *Unsupervised Segmentation by Diffusing, Walking and Cutting*. Winter Conference on Applications of Computer Vision (WACV).

T Shi, M de Almeida, **D Ivanova**, N Pugeault, P Henderson, 2026. *Splat-Portrait: Generalizing Talking Heads with Gaussian Splatting*. International Conference on Multimedia Modeling (MMM).

D Ivanova, M Aversa, P Henderson, J Williamson, 2025. *ARTeFACT: Benchmarking Segmentation Models on Diverse Analogue Media Damage*. Winter Conference on Applications of Computer Vision (WACV).

D Ivanova, M Aversa, P Henderson, J Williamson, 2024. *State-of-the-Art Fails in the Art of Damage Detection*. European Conference on Computer Vision (ECCV) Workshop on VISART.

P Henderson, M de Almeida, **D Ivanova**, T Anciukevičius, 2026. *Sampling 3D Gaussian Scenes in Seconds with Latent Diffusion Models*. International Joint Conference on Neural Networks (IJCNN).

M Aversa, G Nobis, M Hägele, K Standvoss, M Chirica, R Murray-Smith, AM Alaa, L Ruff, **D Ivanova**, W Samek, F Klauschen, B Sanguinetti, L Oala, 2023. *Diffinfinite: Large mask-image synthesis via parallel random patch diffusion in histopathology*. Neural Information Processing Systems Track on Datasets and Benchmarks (NeurIPS).

D Ivanova, J Williamson, P Henderson, 2023. *Simulating analogue film damage to analyse and improve artefact restoration on high resolution scans*. Eurographics (Oral).

D Ivanova, JP Siebert, J Williamson, 2022. *Perceptual Loss based Approach for Analogue Film Restoration*. International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISAPP).

Awards, Fellowships, & Grants

2024	Image Restoration Hackathon Winner - Diffusions in ML: Foundations, generative models and non-convex optimisation , University of Edinburgh, Alan Turing Institute	
2020 - 2024	Doctoral Training Award , EPSRC	£50,000
2020	Most Outstanding Undergraduate Project Award , SoCS, University of Glasgow	£250
2020	Scottish Young Software Engineer of the Year, for Honours thesis , ScotlandIS	£2000
2019	Most Outstanding Level 3 Honours Student , SoCS, University of Glasgow	£200

Teaching Experience

2025	Text as Data/Introduction to NLP , Graduate Teaching Assistant
2020 - 2025	Data Fundamentals/Introduction to Data Science , Graduate Teaching Assistant
2020 - 2024	Deep Learning , Graduate Teaching Assistant
2020-2023	Computer Vision Methods and Applications , Graduate Teaching Assistant
2020; 2025	Programming , Graduate Teaching Assistant

Outreach & Professional Development

SERVICE AND OUTREACH

2023	British Machine Vision Conference (BMVC) Doctoral Consortium , General Chair
2021-2022	Computer Vision and Autonomous Systems (CVAS) research group seminars , Organiser
2018-2020	Glasgow University Society for Women in Technology (GUSWITCH) , Vice President

PEER REVIEW BMVC (2023, 2024, 2025), ECCV (2024, 2026), WACV (2024, 2025), CVPR (2025), ICCV (2025), AAAI (2025), NeurIPS (2026)

SKILLS Python, scikit-learn, PyTorch, HuggingFace (Transformers, Diffusers, Accelerate, Gradio), Pandas, JAX, Fast.ai, Google Cloud Platform, AWS for ML, GoLang, C, C++, ...