

Kyle Fogarty

3D Computer Vision PhD at University of Cambridge

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PROFILE

- Expert in 3D reconstruction, generative 3D modeling, and neural implicit representations, focusing on structural priors and self-supervised learning.
- Applied ML research experience at Hike Medical and the University of Cambridge.
- Strong experience with Python and PyTorch for ML research; strong mathematical background (linear algebra, probability, optimization).

PROFESSIONAL EXPERIENCE

Research Scientist Intern

04/2026 – 10/2026

Meta

Zurich

- Working on Meta's 3D GenAI team to advance 3D asset generation models, with emphasis on efficient generation pipelines and downstream asset usability.

Senior Deep Learning Research Scientist

07/2024 – 02/2026

Hike Medical

- First ML research scientist hire at pre-seed; led model deployment end-to-end and scaled production ML systems that power \$40M ARR.
- Built and shipped robust 3D reconstruction and geometry completion pipelines used by more than 30,000 users.
- Drove product roadmap and innovation with CEO/CTO; mapped product needs to ML milestones.

EDUCATION

PhD Machine Learning

10/2022 – Present

University of Cambridge

- Thesis on *Neural Geometry Processing*; developed algorithms that embed structural priors into 3D ML tasks for improved robustness and generative fidelity.
- Published in 3DV, NeurIPS (main & workshops), ECCV, ICCV workshops, and TMLR, with multiple first- and co-author contributions on 3D ML, generative models, and neural fields.
- Finalist of the Qualcomm Innovation Fellowship 2024.

MSc Robotics · Distinction

09/2021 – 09/2022

University of Lincoln

- Thesis on point cloud reconstruction; developed a method using neural basis functions for surface recovery from sparse 3D data.

MMath & Phys (Mathematics and Physics) · First Class

09/2017 – 09/2021

University of Manchester

- Developed methods to recover strain in polycrystalline materials from neutron imaging spectra; work published in *Applied Physics Letters*.

SELECTED PUBLICATIONS

Self-Supervised Implicit Attention Priors for Point Cloud Reconstruction

3DV 2026

Kyle Fogarty, Chenyue Cai, Jing Yang, Zhilin Guo, Cengiz Öztireli

SYM3D: Canonicalizing Triplanes via Symmetry for Single-View 3D Learning

ICCV Workshop (Oral)

Jing Yang, Kyle Fogarty, Fangcheng Zhong, Cengiz Öztireli

Neural Fields with Hard Constraints of Arbitrary Differential Order

NeurIPS 2023

Fangcheng Zhong, Kyle Fogarty, Param Hanji, Tianhao Wu, et al.