BEN GUTTERIDGE

benpgutteridge@gmail.com
bengutteridge.github.io

EDUCATION

University of Oxford (2021-2026): DPhil in Machine Learning (Engineering Science Dept.)
— EPSRC-funded CDT in Autonomous Intelligent Machines and Systems (<5% acceptance)
— Supervised by Prof. Xiaowen Dong and DeepMind Chair of AI Prof. Michael M. Bronstein
— Research areas: broadly graph neural networks and LLMs; specifically graph rewiring, long-range/ long-context interactions, graph Transformers, graph foundation models, document processing, OCR.

University of Oxford (2017-2021): MEng Engineering Science (Information Engineering)
— **First Class**; recipient of Academic Scholarship, New College.

A-Levels (2017): A*A*A*A | GCSEs (2015): 10 A*s, 2As | (State comprehensive)

EXPERIENCE

Deep Learning Summer Intern, *QuantCo*, London **Jun–Aug 2024, returned Jul–Sep 2025**
— Internal research project investigating LLM reasoning over long-context documents; prompt engineering and fine-tuning with noisy, multimodal long document (~30+ pages) data.
— Invited to return for second internship in 2025; joined DocAI team: document processing for large European health insurer, using multi-modal LLMs and fine-tuned traditional language models.
— Implemented Langfuse for MLOps experimentation pipeline, both in health insurance DocAI project and at QuantCo internally; set up self-hosted deployment with Kubernetes and AWS EKS.

Visiting Data Scientist, *BCG X*, London **Mar–Jun 2024**
— Data science/consulting internship. Worked on the 'Pathfinder' flight schedule optimiser for British Airways. Software engineering and data science in Python, implemented constraint enforcement functionality allowing users to fix flight assignments prior to optimisation runs.

Spring into Quant Finance, *G-Research* **Apr 2023**
— Selected for competitive Spring Insights programme (ML, data science and quantitative finance).

HumBug Project, *Machine Learning Research Group*, Oxford **Jun–Aug 2020, Aug–Sep 2021**
— Project using ML and neural networks (NNs) to detect and classify disease-carrying mosquito species from recordings of their 'buzz' taken on inexpensive smartphones in developing countries.
— Developed voice activity detection and removal system for recordings; tested convolutional NNs and Gaussian mixture models, achieving **97%** speech removal with 75% mosquito/noise preservation.
— Developed and tested benchmark models for mosquito audio dataset paper, accepted with oral presentation at NeurIPS 2021. Used Bayesian/residual NNs on time-series data, achieving ROC/PR AUC scores **0.93/0.9** for mosquito event detection and **92.7**/71.6 for multi-species classification.

ML Project Leader, *Engineers Without Borders Oxford* **2020–2021**

RF Engineering Intern, *QinetiQ*, Malvern **Jul–Sep 2018, Jun–Sep 2019**
— Awarded competitive sponsorship; £3k + two internships developing counter-drone radar; MATLAB.

SELECTED PUBLICATIONS

First author ➤ "DRew: Dynamically Rewired Message Passing with Delay", *ICML 2023* (~150 citations); presented to Learning on Graphs and Geometry (LoGG) group and at G-Research ML Seminar series.

Co-First ➤ "On Measuring Long-Range Interactions in Graph Neural Networks", *ICML 2025*

First ➤ "Judge a Book by Its Cover: Investigating Multi-Modal LLMs for Multi-Page Handwritten Document Transcription", *AAAI-25 Workshop on Document Understanding and Intelligence* (Oral), under review at COLM 2026

First ➤ "Can Graph Foundation Models Generalize Over Architecture?", *Workshop on Geometry-grounded Representation Learning and Generative Modeling, ICLR 2026* (full-length, peer-reviewed PMLR paper)