Chas **Nelson**

DATA SCIENTIST · CHARTERED BIOLOGIST · TECHNOLOGY LEADER

Glasgow, Scotland

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Summary

Chartered Biologist and PhD data scientist focussed on using data to change the world for the better. 10 years experience in data and software for life sciences including data-driven public health insights, academic research in biomedicine, computer vision and AI for MedTech. Driven by creating sustainable transformation and development through data and technology.

Motivations

Leadership Spearheaded the production of new MedTech AI software, leading a growing company of 17 employees

Development Influential in driving cultural change within organisations and supporting individuals to acheive their best

Data Science Delivered statistical analyses for public health white papers, academic research articles on computer vision

Ethics Regular invited speaker on ethical and responsible AI in healthcare and good machine learning practice

Key Experience

Founder · Director · Chief Technology Officer   *2020–current*

GLIFF.AI

- Founding member of gliff.ai as a Durham University spin-out in 2017
- Took over as CTO in 2020, revitalising the company into a high-growth MedTech AI SME with a 20x increase in valuation over two years
- Pioneered the development of new software for MedTech AI using Python, SQL, Typescript and Azure
- Secured and managed over £1M in funding from Innovate UK and private equity investments
- Nominated as Bionow Promising Technologist of the Year 2021
- Invited to contribute to the development of the Pistoia Alliance's Toolkit for Implementing Best Practices in AI and ML Use in Life Sciences

Data Scientist   *2019–current*

FJELLTOPP

- Provided statistics and data science support in Python for Fjelltopp's World Health Organisation (WHO) contracts
- Supported WHO public health experts in interpreting complex qualitative and quantitative data in order to impact policies and people
- Delivered high-quality analyses and reports on topics such as emergency medical services in Ukraine and the CoViD-19 pandemic in Kazakhstan

Lord Kelvin Adam Smith Research Fellow in Data Science · EPSRC Doctoral Prize Research Fellow   *2018–2020*

UNIVERSITY OF GLASGOW

- Awarded two independent research fellowships focussed on data science for biomedicine at the University of Glasgow
- Developed bioimage analysis approaches in Python for understanding zebrafish brain responses in multidimensional imaging data (TBs)
- Built collaborations with researchers at Newcastle University, University of Edinburgh and the Max Planck Institute of Neurobiology
- Invited to speak at Pint of Science, Cafe Scientifique and the Institute of Physics Public Lecture Series

Postdoctoral Researcher   *2017–2018*

UNIVERSITY OF GLASGOW

- Developed novel real-time microscopy and computer vision technologies leading to publications
- Collaborated with researchers at the University of Edinburgh for understanding zebrafish cardiac injury response over multiple days
- Organised the Glasgow Imaging Network and conference bringing together 80+ researchers leading to 50+% creating new collaborations
- Won funding to support a student research projects and outreach activities; mentoring those students throughout their projects and beyond

PhD in Computer Science   *2013–2017*

DURHAM UNIVERSITY

- Thesis title: Mathematical Morphology for Quantification in Biological and Medical Image Analysis
- Developed and deployed image analysis and processing solutions with collaborators at the University of Essex and the NHS
- Projects included automated and accurate nuclei segmentation in fluorescence microscopy and brain aneurysm detecting in MRA images
- Awarded Biophysical Sciences Institute Junior Fellowship

Master of Science in Biology and Physics within the Natural Sciences Programme   *2009–2013*

DURHAM UNIVERSITY

- First Class Honours
- Thesis title: Scratching away at cancer with image analysis
- Awarded Institute for Advanced Computing and Matariki Undergraduate Research Network Grants to carry out independent research on areas of computer vision and interdisciplinary research and education, respectively