

Dr Chas Nelson

INTERNATIONAL DATA CONSULTANT · PHD DATA SCIENTIST · CHARTERED BIOLOGIST

Glasgow, Scotland

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Summary

Data scientist and engineer focused on using data and technology to change the world for the better. 10+ years experience in data for life sciences including data-driven public health insights, data capture and visualisation for academic research in biomedicine, and artificial intelligence for medical devices. Driven by creating sustainable transformation and development through data and technology.

Experience

International Data Consultant

2022–current, 2019

FJELLTOPP

- Supplied data consultancy to help Fjelltopp achieve their mission to harmonise the world's public health data
- Managed projects worth >£100k, working with international stakeholders such as IGOs, governments and public health companies
- Provided technical strategy and leadership on health informatics software used by 50+ countries
- Implemented React.js solutions for sustainable apps for HIV / AIDS data modelling
- Delivered new features and modules for the UNAIDS AIDS Data Repository using CKAN, Python and javascript
- Led high-quality data analysis driving World Health Organisation and national policy in Ukraine and Kazakhstan

International Technical Consultant

2023–current

ECTAD, FAO BANGLADESH

- Brought in to salvage a failing national animal health informatics system for the Food and Agriculture Organization of the United Nations
- Reduced monthly data failures from >10% of users to <1% within 6 months
- Developed a 12-month strategy for increased up time (99+%) and data completeness (80+%)
- Coordinated and led a team of 8 national and international advisors implementing a new quality management system across the project
- Worked with government and implementing partners in prioritising and delivering data visualisation and reporting requirements
- Provided supervision for Python and Javascript software development, guiding the FAO National Technical Advisors as required

Chief Technology Officer · Founder

2020–2022

GLIFF.AI

- Founding director of gliff.ai, a medical artificial intelligence company (spun out from Durham University)
- As CTO, built the company into a high-growth MedTech AI SME with a 20x increase in valuation over 2 years
- Pioneered the development of new data management software for MedTech AI using Python, SQL, Typescript, React and Azure
- Personally involved in securing and managing over £1M in investment 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
- Led our diversity strategy, working with our team of 15, leading to gliff.ai becoming a signatory of the Tech Talent Charter
- gliff.ai ceased trading in 2023 with a management buy-out of the IP

Lord Kelvin Adam Smith Research Fellow in Data Science · EPSRC Doctoral Prize Research Fellow

2018–2020

UNIVERSITY OF GLASGOW

- Awarded two fully-funded 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
- Built collaborations across the world, including at the Max Planck Institute of Neurobiology - one of the top 20 research bodies globally
- Invited to speak at local and national public science events including Pint of Science and the Institute of Physics Public Lecture Series

Postdoctoral Researcher

2017–2018

UNIVERSITY OF GLASGOW

- Developed novel computer vision technologies leading to publication in the 5th highest ranked journal in the field
- Collaborated with researchers at the University of Edinburgh's British Heart Foundation Centre of Research Excellence
- Organised the Glasgow Imaging Network and conference bringing together 80+ researchers leading to 50+% creating new collaborations
- Won £10k funding to support 5 student research projects; mentoring them throughout their projects - 3 have gone on to successful PhDs

PhD in Computer Science

2013–2017

DURHAM UNIVERSITY

- Thesis title: *Mathematical Morphology for Quantification in Biological and Medical Image Analysis*
- Won £70k+ in UKRI EPSRC funding to carry out PhD research
- Developed and deployed image analysis and data science solutions with collaborators at the University of Essex and with the NHS
- Published 10 papers, 2 of which were in top 5 computer vision journals
- Secured £5k from the Wolfson Research Institute to support working with UKRI BBSRC to develop a national review of bioimaging in the UK
- Awarded Biophysical Sciences Institute Junior Fellowship for outstanding interdisciplinary research and leadership

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*
- Won £2.5k funding by Institute for Advanced Computing to carry out medical image analysis research leading to external publications
- Awarded £2k competitive funding by the Matariki Research Network to produce a white paper on interdisciplinary research and education