

## Authors' Biographies

### Book Editors & Chapter Authors

#### Brittany Blankinship (she/her)

Lecturer in Data Science,  
Edinburgh Medical School,  
University of Edinburgh



Prior to entering the Data Science and Health Tech landscape, my academic background was in Linguistics, History, Psychology, and Neuroscience. In fact, I did not encounter programming until my Master's Degree. This was a truly transformative experience that altered the trajectory of my career. Programming unlocked statistics and so much more - and I have never looked back! Day to day, I am the Programme Director for an online, part-time MSc in Data Science for Health and Social Care. I am committed to empowering students by making programming and data science accessible and enjoyable to learn.

As an author, I bring my diverse teaching experience to the book, which spans learning modality (in-person and online), level of study (undergraduate, postgraduate, and CPD), and topics such as statistics, machine learning, data science, and research methods using R and Python. My interdisciplinary background was the foundation of my interest in co-developing the Pair Programming Community that has led to this book. On paper, I am the Principal Investigator for this book project, but it has truly been a group effort with the wonderful community we have built and our outstanding co-editor team.

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#### Pawel Orzechowski (he/him)

Lecturer, Edinburgh Medical  
School, University of Edinburgh



I'm a programmer who fell in love with teaching. I believe that coding is a social and creative activity – it can open up our heart and mind so that we communicate better with each other and computers. For me, coding happens in your head and on paper, as you discuss it with someone... typing it up is just something you do at the end. I've taught programming for over a decade in coding bootcamps and universities (in business, social science and medicine contexts). I've contributed time, technical skills, words and illustrations towards this unique book. I believe in authentic learning and creativity (without LLM reliance) so every letter you read was typed by a human.

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## Charlotte Desvages (she/her)

Lecturer, School of Mathematics, University of Edinburgh



I am a Lecturer in mathematical computing, teaching Python programming skills, numerical methods, and modelling for mathematics students. I first learned programming for my Physics degree, and although initially it didn't click for me at all, I enjoyed it much more when we got to building physics simulations. Decrypting and implementing algorithms to simulate planetary systems or particle dynamics felt incredibly rewarding, and like a whole new world was opening. I was no longer limited to deriving results from oversimplified models on paper; I could build simulations for much more complex and interesting systems. Later on, I specialised in computational acoustics, building virtual musical instruments based on physics simulations. These experiences continue to guide my teaching practice, which I've further developed around peer learning for programming (via pair programming, code review, live coding); the development of computational thinking linked to mathematical thinking; and accessible and inclusive learning.

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## Kasia Banas (she/her)

Senior Lecturer, Edinburgh Medical School, University of Edinburgh



My background is in social psychology, and it wasn't until after my PhD that I discovered my love for programming. But, once I was introduced to R, I fell in love and never looked back. Now I teach introductory data science skills to medics and biomedical sciences students, paying special attention to the fact that most of them never expected to have to code as part of their degree. As a psychologist, I recognise the value of identity and community in learning, and I conduct pedagogical research looking at how we can best support students on their university journey. Together with the other editors, we came up with the (somewhat crazy) idea for this book, and I'm delighted to see it turn into reality.

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## Umberto Noè (he/him)

Lecturer, School of Philosophy, Psychology and Language Sciences, University of Edinburgh



I am a Lecturer in the Department of Psychology at the University of Edinburgh, where I focus on creating inclusive learning environments in statistics and programming. I care about making technical education accessible to all students, regardless of background. With over a decade of experience, I champion innovative methods like peer programming, i.e. the extension of pair programming to larger groups, to foster engagement, belonging, and collaboration. As editor of and author on this book, I want to share my expertise to support educators and future students.

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**Christopher Aldous Oldnall  
(he/him)**

Lecturer, Edinburgh Medical  
School, University of Edinburgh



I come from a statistics and mathematics background and now teach programming through applied statistics and machine learning in health and social care. Much of my teaching focuses on helping learners get past the fear of starting to code, using small, practical tasks to build confidence early on. I mostly work with students from non-technical backgrounds and place a strong emphasis on learning by doing, often through collaborative work that makes coding feel less isolating and more manageable – an approach that underpins my contribution to this book.

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**Serveh Sharifi Far (she/her)**

Lecturer in Mathematical Data  
Science, University of Edinburgh



I am a Lecturer in Mathematical Data Science and a Fellow of the Higher Education Academy. My background is in Statistics, and my research focuses on statistical methodology and its applications in the social and health sciences. I teach undergraduate and postgraduate courses in statistics and data science, including programming in R and Python and working with learners from diverse backgrounds. I am also interested in data science pedagogy and how it can support more inclusive and responsible uses of data, which motivates my contribution to this book as an editor and author.

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**Clare Llewellyn-MacRae  
(she/her)**

Senior Lecturer, School of Social  
and Political Science, University  
of Edinburgh



I'm a senior lecturer in governance, data, and technology, based in a politics and international relations department. My background is in AI and natural language processing. I use these skills to answer real-world, politically motivated questions that are grounded in theory. My research focuses on how AI and Machine Learning methods can be developed and used to understand political views, identity, and behaviour in massive data sets such as news, social media, and archives. I really enjoy sharing my knowledge of coding, AI, and machine learning, as well as my experimental and procedural skills, to support safer, more accountable technology in public-sector and democratic contexts. I have supported Scottish, UK, EU, and US government stakeholders through data-informed research on AI, digital influence, and policy engagement. I have taught programming to people from very diverse backgrounds at different stages of their careers. I love the teaching experience, I learn so much from it, and I enjoy being in that moment when someone gets something that previously felt impenetrable. There is nothing more rewarding.

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## Beatrice Alex (she/her)

Professor, School of Mathematical & Computer Sciences, Heriot-Watt University



I'm a professor and researcher in language technology who's spent years extracting meaning out of messy real-world text: clinical notes from hospitals, 19th-century newspapers, historical archives, you name it. My work sits at the meeting point of natural language processing and the humanities, social sciences and healthcare, which means I've taught programming to people who have never looked at a terminal before but are keen to learn. That experience shapes my contribution here: I care about making computational methods feel approachable, especially for learners who don't see themselves as "tech people" but have brilliant questions worth asking with code.

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## Ozan Evkaya (he/him)

Lecturer in Statistics, School of Mathematics, University of Edinburgh



I am a Lecturer in Statistics (FHEA) at the School of Mathematics (SoM), University of Edinburgh, teaching statistics and data science at undergraduate and postgraduate levels. My research focuses on statistical modelling and copula applications. Recently, I have been interested in generative AI and its impacts on teaching. I have been involved as SIG lead in "AI in statistics education" through the Researchers of Statistics Education Network (RoSE) and the Academy Network of AI Leads in the Mathematical Sciences. As editor of and author of this book, I am motivated to share my diverse set of experiences with interested readers.

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## Franziska (Ziska) McManus (she/her)

Teaching Assistant, Edinburgh Medical School, University of Edinburgh



I teach introductory R and Python within a data science context to undergraduates, postgraduates, and modern apprentices. Teaching across psychology, medicine, and health and social care contexts allows me to identify differences across disciplines and adapt my teaching for each learner. My background is in psychology - particularly psychology of (human) languages - and people often think that teaching data science is an unusual 'career change'. In other words, the same expectation that surprises many of my students when they sign up for a programme of study and suddenly discover that there is a whole lot of programming to learn along the way. I love the challenges and joys of working with beginner programmers across contexts - helping them to see the relevance of programming, and its use as a tool and as a way of thinking.

I am an editor and the project coordinator for this book.

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## Chapter Authors

### **Samantha J. Ahern (she/her)**

Education Co-Lead, Centre for  
Advanced Research Computing,  
University College London



Academically I'm a Computer Scientist, but am an experienced education professional specialising in computing and digital research skills. I focus on the social impacts of technology, including social justice and environmental sustainability. My work in education development is focused on the notion of intentional hospitality, and I enjoy helping colleagues develop as educators. I am a Fellow of AdvanceHE and a Senior Certified Member of ALT.

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### **Samantha Alvarez Madrazo (she/her)**

Senior Teaching Fellow and  
Statistical Teaching Coordinator,  
Imperial College London



I am a pharmacist, health data scientist and educator. Learning programming at the same time as learning statistics can be a challenging journey. Being surrounded by supportive and inspiring colleagues and having a continuous dialogue with online and on-campus postgraduate students enriches my journey. My motivation to contribute to this book is to keep learning from each other, share ideas about empowering students to develop a coding mindset and reflecting about online teaching.

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## Neil Anderson

Reader (Associate Professor),  
Queens University Belfast



I am an educator and researcher in computing with a particular interest in software engineering education, student engagement, and creating effective learning communities. Throughout my career, I have worked to help students develop confidence as programmers and problem-solvers, whether they are learning on campus or through online and distance-learning programmes. My interests span assessment, feedback, learning analytics, and the opportunities and challenges presented by generative AI in education. Alongside this, I have collaborated across disciplines on the development of software systems and digital technologies to support public health and healthcare research. I am passionate about making computing accessible, inclusive, and relevant, helping learners from a wide range of backgrounds discover how programming can be used to solve meaningful real-world problems.

## William H. Bell

Teaching Fellow, University of  
Strathclyde



I have developed software within large international collaborations and commercial projects, using a range of different programming languages and hardware platforms. I started teaching software development concepts more than two decades ago, including postgraduate and undergraduate students, as well as the general public. I was responsible for many programming articles in the Raspberry Pi magazine and have run public events in France, Switzerland and the UK. I enjoy learning new technologies and delivering useful learning.

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## Yanina Bellini Saibene (she/her)

Community Manager, rOpenSci,  
RLadies+, Universidad Austral



I work at the intersection of open science, community building, and research software, with a focus on making knowledge more accessible across languages and regions. My background is in information systems and data science, and much of my work centers on supporting communities in the Global South through mentoring, training, and localization efforts. I contributed to this book to share practical lessons from translating teaching materials, highlighting both the challenges and opportunities of creating more inclusive and globally relevant educational resources.

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## **Devanjan Bhattacharya (he/him)**

Research Fellow, University of Edinburgh



Devanjan is a Research Fellow on WARSHARE where he leads a research strand aimed at computational data analytics using AI/ML. His areas of research and teaching being geomatics and geo-spatial technologies, he works towards intelligent geospatial analytics merging remotely sensed data, navigation technologies, informatics and GIS together, which are proving a strong platform to progress towards sustainable smart societies, and he continues his endeavour towards that goal, through academic engagements.

In the University of Edinburgh, he has reprised the roles of researcher and teacher. He was a Marie Curie Postdoc Fellow on data-driven innovation under TRAIN@ED project, where he worked with peace-building processes compiling spatial data collected online, using AI, NLP and geo-visualization. Then he was on a Teaching Fellowship at the Bayes Centre, involved in the running of earth observation courses. Presently, he holds a Research Fellowship in an ERC/UKRI Advanced Grant in the School of Social and Political Science, developing language parsing in the domain of conflicts and wars media data.

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## **Neil Bray (he/him)**

Senior Epidemiology Scientist,  
UK Health Security Agency



My background is in public health, where coding has become an essential skill for my career. I started teaching programming as I wanted others to see the benefits of coding, to feel like it was achievable, and to enjoy the learning process. As I became a more experienced coder, I realised that programming was not just about writing code but also about developing a particular way of thinking. My contribution to this book is a chapter that explores this further and includes strategies that educators can use to develop this coding mindset in their students.

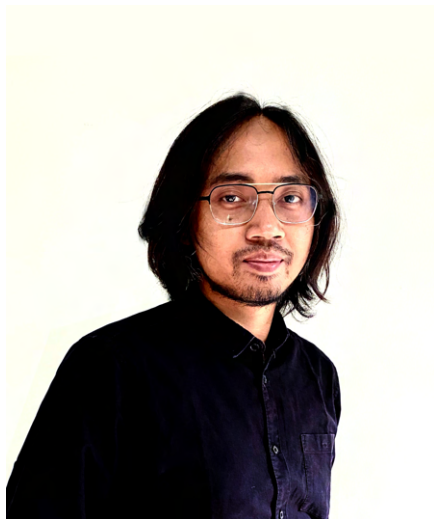
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## **Alex Buckley**

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**Arif Budiarto (he/him)**

Postdoctoral Research Fellow,  
University of Edinburgh



I'm a health data scientist specialising in clinical prediction modelling, EHR analytics, and translational (responsible) AI. After completing my PhD in Medical Informatics at the University of Edinburgh, I moved into a postdoctoral fellowship developing deployable COPD risk\_stratification tools for NHS clinicians. I love turning complex health data into tools that can help people.

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**Yashique Chalil (he/him)**

Tutor, Reid School of Music,  
University of Edinburgh



I am a Software Engineer and Sound Designer dedicated to exploring the limits and possibilities of creative expression. Working at the intersection of music technology, academia, and community-based practices, I aspire to build tools that make this expression more accessible and intuitive. My fascination with the intricate relationship between programming, electronics, nature, culture and the arts inspires me to pursue this path.

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**Rebecca Chislett (she/her)**

Associate Professor, University  
College London



I am an associate professor in the High Energy Physics group at UCL. Following on from my PhD working on the LHC, my current research focusses on precision muon physics, specifically muon g-2 and Mu2e. Computer programming is integral across particle physics to analyse the large volumes of data and use innovative techniques to produce the best results. This motivates my teaching of both particle physics and (most relevant here) an introductory python programming course for first year undergraduates. The ethos is about coding for practical uses in physics, to aid and complement their learning and hopefully set them up for their future careers.

Work website:

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**Lee Clift (he/him)**

Teaching Associate, University of Strathclyde



I am a Teaching Associate in Computer and Information Sciences with a background in robotics and a passion for making technology accessible and engaging for everyone. Alongside my university teaching, I run outreach sessions in schools across the United Kingdom, introducing young learners to programming through creative, hands-on activities.

My work focuses on supporting educators in integrating emerging technologies, such as generative AI and robotics, into their teaching practice, as well as on exploring how endangered and minority languages can be sustained in a digital world.

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**Matthew Collins (he/him)**

Reader (Associate Professor), Queens University Belfast



I'm a former student who never left the university so they eventually started paying me and made me part of the lecturing staff. I teach a variety of modules across our different undergrad and postgrad pathways on both discrete maths and programming subjects. I have a keen interest in Virtual Reality and run a VR lab where students can produce innovative and immersive final year projects and am always interested in exploring what's possible. Inspiring student's to use their imagination to write creative software that unlocks the potential of new hardware is extremely rewarding.

**Rebecca Colquhoun (they/them)**

Teaching Fellow, Imperial College London



I am a Teaching Fellow in Geophysics and Quantitative Geoscience, with a particular interest in how we best teach maths and programming to students who may not have directly chosen to study them! I'm also interested in how we make education, including programming education, more accessible and inclusive for everyone.

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## Chris Cooling

Senior Teaching Fellow,  
Imperial College London



As part of the Early Career Researcher Institute, I teach programming courses to early career researchers from all departments across the university. I mainly teach Python, LaTeX, Fortran and AI-Assisted Programming. I have an interest in helping researchers learn the tools and practices that they can immediately use practically to achieve their research goals. I am also interested in the knotty problem of how we can incorporate generative AI into research computing such that we improve efficiency and capability, whilst retaining reliability, accuracy and accountability.

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## David Cutting (he/him)

Reader (Associate Professor),  
Queen's University Belfast



I'm a software fanatic who fell into education and hasn't (yet) fallen out of it or with it. Programming since single digits of age I've made every technical mistake imaginable and still seem to generate technical debt at an astounding rate. I'm the author of some open source tools, mostly very obscure networking libraries and software. My research interests are around big dirty systems, often of the legacy and distributed variety and somewhat late to the party AI in software development. In my spare time I am an amateur rocketeer slowly working my way through the UK Rocketry Association certification levels with mixed success.

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## Laila Dabab Nahas

Edinburgh Medical School,  
University of Edinburgh



I am passionate about programming, teaching, and research. My academic background is in biotechnology, where I completed both my Bachelor's and Master's degrees, followed by a PhD and postdoctoral research focused on programming and research.

I currently teach postgraduate and undergraduate students in Data Science for Health and Social Care. I support students' many of whom come from non-technical backgrounds' in developing programming skills and learning how to approach complex projects. I encourage them to break problems into manageable steps, helping them build confidence and progress effectively.

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## Frederik Dahl Madsen (he/him)

PhD Student, School of Geosciences, University of Edinburgh & Lyell Centre, British Geological Survey



I am a PhD student at the University of Edinburgh and British Geological Survey, specialising in geomagnetism and geodesy. I am in particular interested in understanding geomagnetic jerks, and how they affect the length-of-day. Outside of my academic endeavours, I am engaged in outreach and engagement around Scotland. I also teach geophysics and science communication at the University of Edinburgh, and am engaged in improving our approach to assessment feedback in our undergraduate degrees.

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## Louise Dash (she/her)

Associate Professor (Teaching), University College London

I'm a teaching academic with a research background in computational condensed matter physics. I've been leading in computing education as part of undergraduate physics degrees for over 15 years. I'm particularly passionate about embedding coding as a core skill within physics degrees, not just in programming classes but as a fundamental part of the wider curriculum. Our students come from a diversity of backgrounds and prior experience with programming, and my approach to teaching is to encourage experimentation and increase confidence for all students.

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## Mar Doig (they/them)

Engineering Education Lead at Perk (<https://www.perk.com>)



I'm a software engineer and educator focused on the human side of technical literacy. As the Engineering Education Lead at Perk, I designed an in-house academy that turns curiosity into production-ready code, using my own career pivot as a roadmap. Away from the screen, I spend my time exploring high-fantasy worlds and rural Scotland alongside my husband and three children.

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## Joseph El Gemayel

Teaching Fellow, University of Strathclyde



I am an experienced computer science educator and Fellow of the Higher Education Academy, with over a decade of teaching across undergraduate and postgraduate levels, specialising in Artificial Intelligence and Machine Learning. My contribution to this book draws on designing and delivering online modules, creating accessible Python programming instruction for non-computer scientists using Jupyter Notebooks, and developing automated assessment approaches. I am also particularly interested in how AI-driven methods can enhance learning, making complex subjects more engaging, inclusive, and effective for large, diverse cohorts.

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## Sarah Elliot (she/her)

PhD Candidate , University of Edinburgh

I am a PhD student in Medical Informatics with a strong commitment to lifelong learning. Since joining Edinburgh University I have had the opportunity to teach and support others in their learning journeys, which has been very rewarding. I am passionate about learning, sharing knowledge, and using data that can improve public health and healthcare outcomes.

## Tuğrulcan Elmas

Lecturer, University of Edinburgh



I am a Lecturer in the School of Informatics at the University of Edinburgh, directing Social Media Analysis and Support For Humanity (SMASH) Lab and teaching Computational Social Science. My research focuses on social media & misinformation, Human-AI interaction, and automating science & education. Recently, I'm particularly interested in developing methods to teach Computational Social Science without overdelegating thinking and planning to AI, which is one reason I am glad to be a contributor to this book.

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## Tom Farrington (he/him)

Senior User Researcher, Storm ID



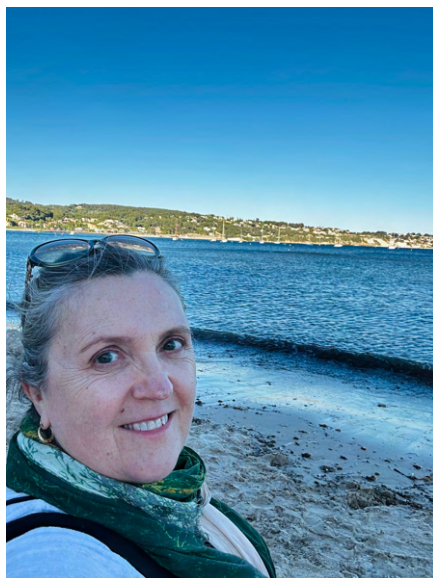
I'm a senior user researcher at Storm ID, a digital consultancy based in Leith, Edinburgh, where I've worked on projects for clients such as the Scottish Government, Historic Environment Scotland, and the Edinburgh Festival Fringe Society. Before this, I lectured and researched at Heriot-Watt University in Edinburgh, where I was Head of Research Methods teaching and worked on a wide variety of research projects in the School of Social Sciences. I've also taught at South East European University in Tetovo and the University of Edinburgh, where I received my undergraduate, Master's, and doctoral degrees, and where I was Co-Director of the Scottish Universities' International Summer School.

In my spare time, I like metal and pop and comedy, writing and reading and talking, and running and thinking.

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## Suzanne Goopy

University of Edinburgh



I am a social and visual anthropologist by training and an educationalist by design. In practice, across a career spanning (too) many years and a number of countries, I have sought to find innovative ways to engage with contemporary issues and challenges both in research and education. I have worked with academic and industry research partners and collaborated across different fields including data science, library sciences, environmental design, medicine, nursing, psychology, health, migration, arts, ethics, and documentary practice. I enjoy exploring and teaching others about innovative visual and cultural research and dissemination methodologies. I most especially enjoy the challenges that arise from multilayered explorations of knowledge translation and knowledge exchange.

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## Jonathan Holt (he/him)

PhD Student, Imperial College London

I am a PhD student at Imperial College London focusing on the biomechanics of the knee. Most of my work has been on the coding side of the development of simultaneous partial knee reconstructions and ligament repairs.

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## Nick Jayanth

Teaching Fellow, Imperial  
College London



I am a Teaching Fellow and joined the teaching family as a Graduate Teaching Assistant after my Masters in 2020, and it was the best decision! I enjoy teaching statistics in the public health context. I also teach programming, mainly in R. I want to share my experiences in these fields and would like to learn from others. Beyond my role, I enjoy history and travelling. I often say to myself if I was not a teacher, I would have been on some archaeological dig in Egypt!

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## William P. Kay (he/him)

Lecturer in Statistics, Cardiff  
University | Prifysgol Caerdydd



I trained as an ecologist and, for most of my time as a student, never imagined I would become a Lecturer in Statistics - I was intimidated by both statistics and programming and avoided them whenever possible! Everything changed during my PhD, when my supervisors encouraged me to learn R. What began as a necessity quickly became a passion. I realised that programming was not just a reproducible way to run analyses, but a powerful tool for understanding statistics and tackling the messy, complex data that ecologists work with every day.

Today, I lead statistics teaching across all levels in the School of Biosciences at Cardiff University, and lead the School's digital education strategy. My scholarship focuses on statistics pedagogy; helping students build confidence in statistics and programming through mitigating anxiety, and developing statistics curricula. I am inspired by Steve Jobs' observation that "coding is a mirror to your thought process - it teaches you how to think" and remind my students that learning statistics and programming requires only three things: patience, persistence, and faith.

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## Stuart King

Reader, University of Edinburgh

I am a Reader in applied mathematics, and my research interests span across applied machine learning and mathematical modelling, with applications from health image data through to environmental problems. I have taught programming and data science in various places over the last twenty years, often with an interdisciplinary angle, and often at an introductory level. I'm really interested in introducing more learners to thinking algorithmically and the value that programming can bring as a way of solving problems.

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## Olexandr Konovalov (he/him)

Lecturer, University of St Andrews



I am a Lecturer in Computer Science and a Fellow of the Software Sustainability Institute. My background is in Pure Mathematics, and initially I came to Scotland from Ukraine to work on the open-source mathematical software system called GAP. Now I teach Python for diverse cohorts of learners and advocate for good practices of working with code and data. I am an Instructor and an Instructor Trainer for The Carpentries, where I have established and coordinate the Ukrainian Carpentries Community. My contribution to this book is very much based on the experience of translating The Carpentries teaching materials into Ukrainian.

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## Patricia A. Loto (she/her)

Teaching Assistant, Software Quality Research Group - UNNE



My background is in Information Systems and I work as a university programming instructor. I have taught people approaching code for the first time, with no prior computing background, and I currently teach core computer science courses — a journey that showed me that, regardless of the level, what defines a good programming class is designing for those who need it most, leaving no one behind.

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## Andrew MacLaren (he/him)

Associate Professor, Heriot-Watt University



I have a background in the social sciences, having researched leadership and language in my PhD, and my current research interests focus on teamwork and communication. I see teaching as central in an academic's life and feedback is fundamental to how our students learn. My work on feedback led to my contribution to this book through the Action Feedback Protocol project, which takes a systems approach to delivering feedback. I also co-host a podcast called Teamcraft which offers an academic and a technology leader's views on teamwork – available on all platforms and Youtube.

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### **Tiago A. Marques (he/him)**

Principal Research Fellow,  
CREEM; University of St Andrews  
/ CEAUL; DBA; Faculdade de  
Ciências da Universidade de  
Lisboa



I was once a biologist that become more and more attracted by the dark side of the force, so then I did an MSc and a PhD in statistics. These days I work as an ecological statistician, mostly on the topic of animal abundance estimation. I teach, and have a keen interest in how we should be teaching statistics to ecologists that might be as afraid from it as I once was.

Work website: <https://research-portal.st-andrews.ac.uk/en/persons/tiago-a-marques/>

Github: <https://github.com/TiagoAMarques>

### **Katerina Michalickova (she/her)**

Principal Teaching Fellow,  
Imperial College London

I'm an educator with a background in high performance computing and bioinformatics. I focus on coordinating and promoting a comprehensive programme in computing and data skills for early-career researchers. I'm always interested in exploring new ways to facilitate learning and in pondering how to adapt our teaching to the LLM generation.

Work website:  
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### **Lucia Michielin (she/her)**

Digital Skills Training Manager,  
University of Edinburgh



Lucia Michielin works within the Data-Led Methods and Research Technology team (EFI-University of Edinburgh), where she leads a data-led methods training programme. Her work supports researchers in the Arts, Humanities, and Social Sciences who wish to incorporate digital and data-driven methods into their research projects and offers a wide range of learning opportunities, from introductory coding courses to hands-on workshops, challenge-led collaborative work, and in-depth explorations of various digital methods. Lucia has considerable experience in designing and delivering training courses focused on data skills and digital research methods, as well as applying computational methods in humanities research. She holds a PhD in Classics from the University of Edinburgh and has developed extensive expertise in the Digital Humanities.

Work website:  
<https://edwebprofiles.ed.ac.uk/profile/dr-lucia-michielin>

## Elaine Mowat

Programme Manager, University of Edinburgh



I am a learning and development specialist who has worked on a wide range of educational initiatives in higher education and the third sector in roles such as learning design, tutoring, coaching and mentoring and programme management. I like working on projects that are values-based and purpose-driven, and enjoy collaborating with others to create experiences that support and challenge learners to discover new possibilities - 'come with us on a learning adventure!'

## Tom Mudd

Reader, School of Music, University of Edinburgh

I'm a musician who primarily uses coding as a way to explore music-making. I teach on courses that relate to this in the school of music at the University of Edinburgh.

Personal website:  
<https://tommudd.co.uk>

## Maeve Murphy Quinlan (she/her)

Research Software Engineer, University of Leeds

I'm a research software engineer with a background in planetary science research. I teach researchers how to implement sustainable software practices, in a way that aims to be welcoming, encouraging, and inclusive. When I'm not researching or coding, you can find me playing a TTRPG with my friends: the perfect place to live the dream of redistributing wealth and getting a solid eight hours of uninterrupted sleep. While I helped to brainstorm and plan our chapter in this book, the writing credit must firmly sit at the feet of my fantastic lead co-author, Francisco!

Personal website:  
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ORCID: <https://orcid.org/0000-0003-2958-1008>

## Lisa Otty

University of Edinburgh



I am Director of the Centre for Data, Culture & Society and Head of Data-Led Methods and Research Technology at the Edinburgh Futures Institute, where my work focuses on finding creative and engaging ways to support researchers exploring, adopting and adapting data-led and applied computational methods. My background is in Digital Humanities and textual scholarship, I am motivated by the belief that arts and humanities scholars can bring invaluable insights to the design, development and implementation of tools and technologies.

Work website:

<https://edwebprofiles.ed.ac.uk/profile/dr-lisa-otty>

## Elizabeth Pankratz (she/her)

Lecturer, University of Edinburgh



I'm a linguist turned statistics teacher. My teaching practice is built on ideas from critical pedagogy and psychological research on motivation, learning, and memory. I care a lot about helping people overcome their fear of statistics and programming, and I think that a key way to do this is to give people the freedom to take risks and try new things without penalty, an idea that I explore in my chapter of this book.

Personal website:

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GitHub:

<https://github.com/elizabethpankratzt>

## Olga Petrovska

Institute of Coding in Wales,  
Swansea University



I am a researcher and educator at the Institute of Coding in Wales and Swansea University, and a Senior Fellow of the Higher Education Academy. My academic background is diverse, spanning linguistics, pedagogy, and theoretical computer science. I am deeply interested in how people learn, reason about, and communicate technical ideas. My recent work focuses on computing education, with particular emphasis on Generative AI literacy.

Personal website:

<https://opetrovska.github.io/#about>

LinkedIn:

<https://www.linkedin.com/in/olgapetrovska/>

## Ruini Qu (she/her)

University of Edinburgh



I specialize in Management Science and Operations Research, focusing on how technical tools can be leveraged within Business Analytics. As someone relatively new to teaching code, I am constantly exploring different pedagogical approaches to find what truly resonates with business students. My goal is to move beyond syntax and help learners see the practical side of programming. Outside the classroom, I enjoy DIY projects and crafting handmade pieces—finding the same joy in building things by hand as I do in building a good piece of analysis.

## Nguyen Quang Chien (he/him)

Research Associate, University of Edinburgh

I joined the University of Edinburgh, School of Engineering, on a contract-based work related to software development. My background is in civil engineering, more precisely, hydraulics, and I had university teaching experience in Vietnam before Microsoft Copilot and Google Gemini were introduced. Now, civil engineering students are largely accessible to code and data repositories as well as good practices in programming. I believe that a shift in mindset towards programming would help them start their careers strong, and this initiates my contribution to the book.

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## Francisco Queiroz (he/him)

Lecturer, University of Leeds



I am a designer and educator (not necessarily in that order). My teaching background spans over nineteen years, two countries, and disciplines as diverse as image editing, game prototyping, research methods, and communication. My contribution to this book reflects my intention of making learning a truly collaborative and progressive experience.

Work website:  
<https://ahc.leeds.ac.uk/design/staff/2233/dr-francisco-queiroz>

ResearchGate:  
<https://www.researchgate.net/profile/Francisco-Queiroz>

**Karim Rivera-Lares (she/her)**

Teaching Coordinator, University of Edinburgh



I am a psychologist who fell in love with programming. Learning to code was really daunting, but the sense of achievement I felt after solving a problem was thrilling. During my PhD in psychology at the University of Edinburgh, I realised I was my happiest self whenever I was coding and teaching how to code. My favourite thing at work is to see the excitement in students' faces when they solve a problem that they were struggling with. I'm very excited about this book, because I am confident it will contribute to more students getting excited about programming.

LinkedIn:

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**Leo Riviera (he/they)**

Innovation & Outreach Lead, Voxa



I'm a software engineer by trade, with a focus on helping cool people do cool stuff. I work at a space startup, organise engineering community groups and produce installations for creative technology festivals. I'm also working on a book about how building opinionated tooling can help startups succeed. When I'm not busy touching computers, I mentor people from underrepresented backgrounds so they develop the skills they need to work as software engineers. I also speak at conferences and contribute to open source, advocating for decentralisation, open data and personal data sovereignty. I'm a big believer in the power of using systems thinking to build a world where hardware, software and peopleware work well together. In that vein, I've contributed to and edited this book.

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**Gule Saman (she/her)**

Associate Professor, Heriot-Watt University Edinburgh



I am an Associate Professor in Data Science with a background in Computer Vision at Heriot-Watt University (HWU), where I serve as Co-Programme Director of the Graduate Apprenticeship in Data Science Programme and Associate Academic Dean. I am passionate about creating inclusive and supportive environments in STEM and co-lead the HWU STEM Inclusivity Network, which was Highly Commended in HWU's Equality, Diversity and Inclusion Champion Team Award 2025.

With a background in STEM, and often being the only woman in my engineering lectures, I understand the importance of fostering inclusivity, belonging, and representation. As a Senior Fellow of the Higher Education Academy and recipient of a commendation in the HWU Inspiring Learning Early Career Award (2021), I am committed to empowering the next generation and contributing to meaningful conversations that help all students recognise and celebrate their place within the STEM ecosystem.

LinkedIn:

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## Ignacio Sepulveda (he/him)

Lecturer, Scotland's Rural College (SRUC)



I'm a chemical engineer doing research and teaching in wildlife and conservation management. My mum used to work as a software engineer, so there were computers around in my house for as long as I can remember. I had my first PC running early versions of DOS and Windows, and I used to invite friends over to play games.

Back at University I learned how to use R and different GIS software. I still remember that feeling, almost like early humans discovering fire.

For the past six years, I've been lucky enough to teach conservation students how to discover these skills for themselves. That journey led me to contribute my own experience to this book.

LinkedIn:

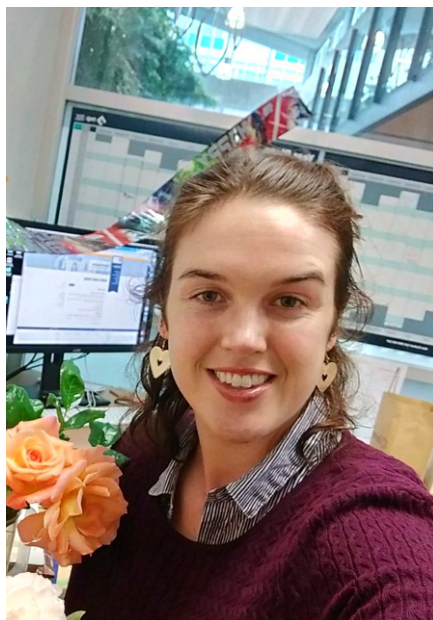
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Work website:

<https://www.sruc.ac.uk/course-catalogue/wildlife-and-conservation-management/hnc-wildlife-and-conservation-management/>

## Rebecca Sewell (she/her)

Data Integrity Administrator,  
Health New Zealand | Te Whatu Ora



## Leila Shila Shafti

Teaching Fellow, University of Strathclyde

I have been teaching programming for more than two decades in Spain and the UK. I have experience teaching both online and in-person classes across undergraduate and postgraduate programmes. I am particularly passionate about exploring innovative methods to enhance teaching and learning, with the aim of making complex concepts more accessible and strengthening practical understanding. I focus on creating an inclusive and supportive learning environment that encourages engagement and curiosity.

## Hebatallah Shoukry

Assistant Professor, Heriot-Watt University



Hebatallah Shoukry earned her PhD from Heriot-Watt University in 2020 and currently holds the position of Assistant Professor in the Electrical, Electronics, Computer Engineering (EECE) department within the School of Engineering and Physical Science (EPS). Specialising in mathematical and introductory computer science courses for the Data Science Graduate Apprenticeship programme, she emphasises student-staff collaboration to boost student engagement. Recognized for her dedication, she received a commendation at the Teaching Excellence Awards 2021 and attained Fellowship of the Higher Education Academy (FHEA) in 2022 for her commitment to teaching and learning standards.

Focused on student engagement and active learning, Heba Shoukry's research revolves around effective pedagogies to enrich student experiences. Guided by a teaching philosophy centered on fostering strong relationships and communication, she strives to support students both academically and socially.

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## Jeremy Singer

Professor, University of Glasgow



I teach programming to students from various backgrounds - some are Computer Science majors, many are not. My favourite programming languages are Haskell, Java and Rust. I also confess to knowing C and Python. I love seeing students' eyes light up when they 'get it' and understand what's wrong with their code and how to fix it.

Personal website:

<https://www.dcs.gla.ac.uk/~jsinger>

Github: <https://github.com/jeremysinger>

## Sam Skipsey (he/they)

Research Fellow, University of Glasgow

Officially I'm a physicist, and stumbled into research-only University track, but increasingly the things I care about most are; ethics in research and academia (and beyond), teaching people to think better and wider, and computing as a discipline that broadens capability for all. I am also one of the organising committee for the Roller Derby World Cup (and at some point will actually finish the paper on this that we've been co-authoring for more than a year...)

Work website:

<https://www.gla.ac.uk/schools/physics/staff/samuelskipsey/>

**Luke Stephens (he/him)**

Research Fellow, University of Edinburgh



I'm a Research Fellow in the Neuropolitics Lab at the University of Edinburgh, where I study narrative, foreign policy, and International Relations theory. My work brings together interpretive narrative analysis and computational methods, looking at how the stories we tell shape political identity. I recently worked on a framework for using Large Language Models to perform qualitative narrative analysis, and I'm interested in teaching others to use these tools thoughtfully, without losing interpretive rigour.

Work website:

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**Gordon Stewart (he/him)**

ScotGrid Technical Co-ordinator, School of Physics and Astronomy, University of Glasgow

I am a research IT specialist who has worked in various disciplines across science and engineering; I currently manage large computer systems primarily used to crunch numbers for CERN, the European Organisation for Nuclear Research. Having originally trained as a software engineer, I now teach physicists and students from other backgrounds how to use computers—particularly those running Linux operating systems—and how to develop software for use in scientific research.

**Chris Sutherland (he/him)**

Reader, University of St Andrews



I work at the intersection of spatial ecology and statistics, developing biologically realistic models to understand how space use, dispersal, and demography respond to density, environment, and landscape structure. The goal is to turn ecological theory into practical tools for conservation and management.

Personal website:

<https://sutherlandecology.com/index.html>

**Mike Taverne (he/him or they/them)**

Research Fellow in Electrical Engineering, Northumbria University



With a background in electrical engineering, I am specifically interested in photonics, quantum technologies, and developing related software. Making these complex concepts accessible and opening doors for others to discover the wonders of these subjects has long been a passion of mine. I enjoy teaching and inspiring others. I consider alternative learning and teaching techniques through playful means, such as music and games. I kept this creative approach in mind when writing my contribution to this book.

Work website:

<https://www.northumbria.ac.uk/about-us/our-staff/t/mike-taverne>

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**Antonia Voigt (she/her)**

Lecturer, Surrey Business School, University of Surrey



My work is driven by a vision of a flourishing future for and through higher education. In the classroom, I am passionate about creating authentic learning experiences that empower students to develop lifelong and lifewide skills. Shaped by my fascination with complex systems, my teaching centres on helping students to find joy in the unpredictable nature of learning. Beyond the classroom, I draw on my background in education and management to support universities as organisations in cultivating educational quality in more sustainable ways.

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**Lizzie Wadsworth (she/her)**

Lecturer in Biological Sciences, Kingston University



I feel very fortunate to have been taught Python programming during my undergraduate degree, as it is so useful in Biological Sciences and has led to my PhD and career opportunities. I'm passionate about passing this on to the next generation of biologists as I believe this opens so many doors for them. I also find programming to be the most enjoyable subject to teach as it's so hands-on, and watching students go from very little prior background to confidently writing and debugging their own code is very satisfying.

Work website:

<https://www.kingston.ac.uk/about/staff/dr-lizzie-wadsworth>

LinkedIn:

<https://www.linkedin.com/in/lizzie-wadsworth-670b04170/>

## Steven Watterson

Lecturer in Computational  
Biology, the University of Ulster

## Ben Waugh (he/him)

UCL



My training was in physics, and I am still a physicist, but my focus has shifted to computing and teaching. I see assessment as a vital part of education, but I don't like marking, so I am constantly striving for approaches that guide learners towards better understanding, and fairly reflect their achievements, without sucking the joy out of life for markers or students.

Work website:

<https://profiles.ucl.ac.uk/3606-ben-waugh>

LinkedIn:

<https://www.linkedin.com/in/ben-waugh-148053152/>

## John Wilson

**Teaching Fellow, Edinburgh  
Medical School, University of  
Edinburgh**

I worked in outdoor education for over 10 years where I helped terrified people understand that walking backwards off a cliff was scary, but safe. I later went to university to study ecology, and eventually found myself explaining that although R was scary, it was safe. I have spent the years since helping people learn technical subjects am convinced that people describe things as “scary” or “difficult” they really just mean “unfamiliar”.

## Eileen Y. Xu (she/they)

University of Edinburgh



I am a mental health researcher and statistics tutor on undergraduate and postgraduate data analysis courses in Psychology. As a tutor, I help students to build confidence in their coding abilities during weekly labs by providing not only technical support, but also encouragement and reassurance. After all, nobody really memorises code - it just gets easier with time, practise and a lot of trial and error!

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## Robert S Young

Senior Lecturer, Edinburgh  
Medical School, University of  
Edinburgh; Zhejiang University -  
University of Edinburgh (ZJE)  
Institute



I teach various courses in programming, statistics and genomics. I lead a course which introduces Python programming to students from both a biomedical sciences and a biomedical informatics undergraduate degree programme. I enjoy showing students that the computer can be a powerful tool for research, and not something to be afraid of.

I also lead a research programme which investigated how variation in medical traits and disease risk is driven by variation in the genomic content of noncoding, regulatory loci such as promoters and enhancers.

Work website:  
<https://edwebprofiles.ed.ac.uk/profile/rob-young>

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<https://www.linkedin.com/in/rob-young-9804a780/>