DIGITAL HUMANITIES RESEARCH SOFTWARE ENGINEERING (RSE) SUMMER SCHOOL 2023

ONLINE: 24 & 25 JULY
IN-PERSON: 27 & 28 JULY
THE UNIVERSITY OF CAMBRIDGE

In collaboration with:
This summer school is split into two parts.

- **MONDAY 24 & TUESDAY 25 JULY 2023, 9.30AM - 4PM (TALKS) ONLINE**
- **THURSDAY 27 & FRIDAY 28 JULY 2023, 10AM - 5PM (IN-PERSON WORKSHOPS) CAMBRIDGE, UK**

- The first two days (Mon and Tue) are online. These days are free of charge.
- The second two days (Thu and Fri) are in-person in Cambridge. There is a small charge of £60 to attend in-person, to cover catering costs.

You must attend the first-two days online to attend in-person.

NB: There are no events on Wed 26th July 2023.

**KEY CONTACTS**

**DR MARY CHESTER-KADWELL**  
*Summer School Convenor*  
Email: mec31@cam.ac.uk

For all course enquiries regarding content and curriculum, including technology, contact Mary.

**FLORENCE HARRY**  
*CDH Events Coordinator*  
Email: office@cdh.cam.ac.uk

For all admin enquiries including logistics, payment, and planning, contact Florence.
<table>
<thead>
<tr>
<th>SESSION</th>
<th>TOPICS</th>
<th>SPEAKERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Morning</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Organised by The Alan Turing Institute | Overview of RSE; the importance of RSE in digital humanities - software tools created for The Living with Machines Project | • Opening Keynote: **David Beavan**, Lead Research Software Engineer, The Alan Turing Institute  
• **Katherine McDonough**, Lecturer in Digital Humanities, Department of History, Lancaster University and Senior Research Fellow, The Alan Turing Institute  
• **Mariona Coll-Ardanuy**, Senior Research Associate, The Alan Turing Institute |
| **Afternoon** |                                                                          |                                                                          |
| Organised by Cambridge Digital Humanities | Deployment infrastructures with containers and serverless; supporting Digital Humanities MPhil students; careers in RSE. | • **Mary Chester-Kadwell**, Senior Software Developer, Cambridge University Library and Lead Research Software Engineer, Cambridge Digital Humanities  
• **Mahmoud Abdelrazek**, Senior Research Data Steward, Advanced Research Computing, University College London  
• **Jonathan Blaney**, Digital Humanities Research Software Engineer, Cambridge Digital Humanities |
## TIMETABLE

**DAY 2 | ONLINE**  
**TUESDAY 25 JULY, 9.30AM - 4PM**

<table>
<thead>
<tr>
<th>SESSION</th>
<th>TOPICS</th>
<th>SPEAKERS</th>
</tr>
</thead>
</table>
| **Morning** | Working and engaging humanities researchers in digital humanities projects; rapid prototyping; parallel computing in the humanities. | • **Lisa Otty**, Acting Director of the Centre for Data, Culture, & Society (Edinburgh Future Institute, University of Edinburgh)  
• **Lucia Michielin**, Digital Skills Training Manager of the Centre for Data, Culture, & Society (Edinburgh Future Institute, University of Edinburgh)  
• **Jessica Witte**, Postdoctoral Fellow in Text & Data Analysis, School of Literatures, Languages & Cultures and Centre for Data, Culture, & Society (University of Edinburgh) |
| **Afternoon** | Research Software Development Life Cycles; AHRC investment in RSE resources and career pathways | • **Neil Jakeman** (Senior Research Software Analyst, King’s Digital Lab)  
• **James Smithies**, Professor of Digital Humanities, King’s College London |

**Wednesday 26 July | Travel day. Please note, there are no events on this day.**
**Morning**

**Organised by The Alan Turing Institute**

**Collaborating on Code**

Collaboratively writing and reviewing code is a crucial skill for working as part of a team. Keeping track of outstanding issues and proposed solutions, as well as ensuring compatibility of code written by different team members becomes challenging as the team size grows. In this hands-on workshop, we will review the "gitflow" framework for efficiently organising and tracking collaborative programming, and practice creating GitHub Issues, Git branches, and Pull Requests. A basic familiarity with Git and the GitHub interface is recommended.

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**Afternoon**

**Organised by Cambridge Digital Humanities**

**Testing and Continuous Integration**

Testing code helps to make sure it behaves the way we intended and continues to do so in the future. Writing code and tests together at the same time helps us to write modular and testable code. Running tests should be done every time code changes and whenever code is merged on collaborative projects, which is a task ideally suited for automation. In this workshop we will cover these topics, building on the collaborative coding exercise from the morning. The workshop will use Python and YAML.

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**Evening (optional) Drinks and Networking Reception**
### Organised by King’s Digital Lab

#### Morning

**3D Data - Structure from Motion**

Structure from motion is an imaging technique for creating 3D images from 2D images. In this workshop we will cover how to image a variety of artefacts for humanities and collections research. We will look at strategies for different scenarios (e.g. room scale capture, landscape capture, and capturing individual smaller items with differing textural qualities). We will consider how to systematically record the creation process for reproducibility and third-party critique. To explore the method we will use trial versions of Agisoft Metashape (30-day evaluation licence), which will allow us to see the technique in action.

### Organised by University of Edinburgh

#### Afternoon

**Teaching Computational Methods to Humanities Researchers**

Teaching computational methods to researchers from non-STEM backgrounds, such as those working in humanities disciplines that have not historically incorporated digital methods, presents unique challenges. During this workshop, we are going to explore several pedagogical methods for training humanities researchers on digital research techniques. We will discuss and demo different training modalities, including hands-on live coding workshops, how-to guides to approach methods, and asynchronous online options.
We will also explore ideas for good practice in supporting humanities researchers in incorporating computational techniques into their existing research. We will do this by exploring different training activities focusing on the same technique to see how to set learning environments to better engage with various audiences, and how to bridge the gap between computer science and humanities methodologies. The workshop will focus on text analysis techniques and will use Python.

**NB: CONTENT AND TIMINGS MAY BE SUBJECT TO CHANGE**
WORKSHOP TEACHING TEAM

JONATHAN BLANEY
Digital Humanities Research Software Engineer, Cambridge Digital Humanities.
Jonathan is the RSE for CDH’s MPhil in Digital Humanities, where he is responsible for supporting students with their hands-on research. He has particular experience of text-based collections, having worked on DH projects at the universities of London and Oxford, and as Editor of the digital library British History Online. He’s the lead author of Doing Digital History (MUP).

LEVAN BOKERIA
Research Data Scientist, The Alan Turing Institute
Levan Bokeria is a Research Data Scientist at the Alan Turing Institute. His background is in Cognitive Neuroscience of learning and memory, with a PhD from the University of Cambridge and a Master degree from Donders Institute at Radboud University. Levan finished his Bachelors at the University of Rochester studying Philosophy and Brain and Cognitive Sciences.

MARY CHESTER-KADWELL
Senior Software Developer, Cambridge University Library & Lead Research Software Engineer, Cambridge Digital Humanities
Mary is a Senior Software Developer at Cambridge University Library and Lead RSE for CDH. She has a PhD in the landscape archaeology and material culture of early medieval England using computational methods. Mary advises researchers on the technical aspects of projects, works on a wide variety of software and teaches coding and software engineering practices.

LYDIA FRANCE
Research Data Scientist, The Alan Turing Institute
Dr Lydia France completed her PhD in bird flight in Zoology at Oxford University and now works as a Research Data Scientist at the Alan Turing Institute. Lydia has been collaborating on Digital Humanities projects as part of Living with Machines, teaching undergraduates, postgraduates, and even professors about coding and reproducible research since 2015.
WORKSHOP TEACHING TEAM

NEIL JAKEMAN
Senior Research Software Analyst, King’s Digital Lab
Neil has worked at KCL since 2011, initially as a developer at the Department of Digital Humanities before King's Digital Lab was established, where he is now a Research Software Analyst. His background is in Geographic Information Systems (GIS) and 3D modelling for cultural heritage. However, in previous lives he was a primary school teacher, an environmental consultant, and a student of geology. Neil will be leading an online session on good practice for research software development life cycles, and an in-person session on 'structure from motion', AKA photogrammetry.

LUCIA MICHIELIN
Digital Skills Training Manager, Edinburgh Centre for Data, Culture & Society
Lucia is the Digital Skills Training Manager for the Centre for Data, Culture, & Society. She is responsible for managing and developing the centre’s Training Programme, including training provisions on applied digital and data-driven research. Originally trained in Classics and Archaeology and she has worked on digital humanities projects since 2010. She has taught undergraduates, postgraduates and staff on topics ranging from photogrammetry to text and data analysis.

JESSICA WITTE
Postdoctoral Research Fellow, Edinburgh Centre for Data, Culture & Society
Jessica is a postdoctoral research fellow in Text & Data Mining at the University of Edinburgh affiliated with the Centre for Data, Culture & Society. Originally trained as a literary scholar, she often finds herself analysing the glitches, gaps, bugs, errors, and anomalies in datasets as meaningful points of inquiry. Her research interests include NLP for humanities research, data ethics, and interdisciplinary digital literacies.
RESEARCH SOFTWARE ENGINEERING (RSE) SUMMER SCHOOL

THANK YOU!

Whether attending online only, or online and in-person, we can't wait to welcome you to the RSE Summer School this July.

If you have any questions, please do not hesitate to contact us at office@cdh.cam.ac.uk.

Enjoy the Summer School!

The CDH Team