

N8 CIR Newsletter

Welcome

Welcome to N8 CIR's February newsletter. It's slightly late because we've been putting the finishing touches to a host of new events and workshops. These workshops will help academics and researchers across the partnership to develop new skills and maximise the benefits of high-performance computing (HPC) in their work.

IBM Training

In mid-March N8 CIR will be hosting two workshops intended to help researchers access and make better use of Bede, our new GPU-accelerated, high-performance computing platform. These sessions will be led by technical experts from IBM so should be packed with useful advice about how to use Bede's unique architecture.

IBM Training

HPC and Bede

12 March, 9-11am

<https://n8cir.org.uk/events/bede-ibm-1/>

Join IBM HPC and AI Technical Expert Ludo Enault for the first session to help users access and maximise the benefits of Bede, N8 CIR's new GPU-accelerated computing platform.

After a general introduction to the system, Ludo will cover:

- How to submit jobs to Bede
- Maximising the benefit of GPUs in batch workloads
- Understanding IBM's AC922 (Power 9) architecture

The session will have plenty of time for questions and discussion about how best to run your code on Bede.

AI and Bede

19 March, 9-11am

<https://n8cir.org.uk/events/bede-ibm-2/>

Bede's unique GPU-accelerated architecture makes it ideal for AI and machine learning research using well-known common frameworks. However, there are also exclusive IBM toolsets that further this advantage.

This workshop will cover:

- Utilising Large Model Support with extended datasets
- Using SNAPML to accelerate larger machine learning jobs
- Spreading workloads across multiple GPUs and nodes

There will be plenty of time for questions and discussion about how best to run your code on Bede.

Save the date – Cuda and C/C++

19 March, 9-11am

We are working with Richard Regan, an NVIDIA deep learning ambassador, to deliver a one-day course. This is likely to take place on **Wednesday 17 March** from **9am – 5pm**. If you're interested in a full-day of tips and tricks for CUDA then put the date in your diary and keep an eye out on Twitter for further announcements.

Research Data Management Network Event

The second meeting of the N8 Research Data Management Network will take place on Wednesday 24 March 2021.

The overall theme for the event is 'sensitive data' and will feature speakers from across the UK talking about different aspects of this often-challenging subject. John Southall of the Bodleian Library will be joining us to speak about the Safepod network and Zosia Beckles will talk about Bristol University's extended support for publishing sensitive research data.

There will be two further speakers added to the programme in the next few days.

You will be able to read full details of each speaker's talks, and reserve a place, on the event's web page at: <https://n8cir.org.uk/events/rdm-network-2/>



RSE Leaders and Aspiring Leaders

Friday 26 March, 9am-12 noon

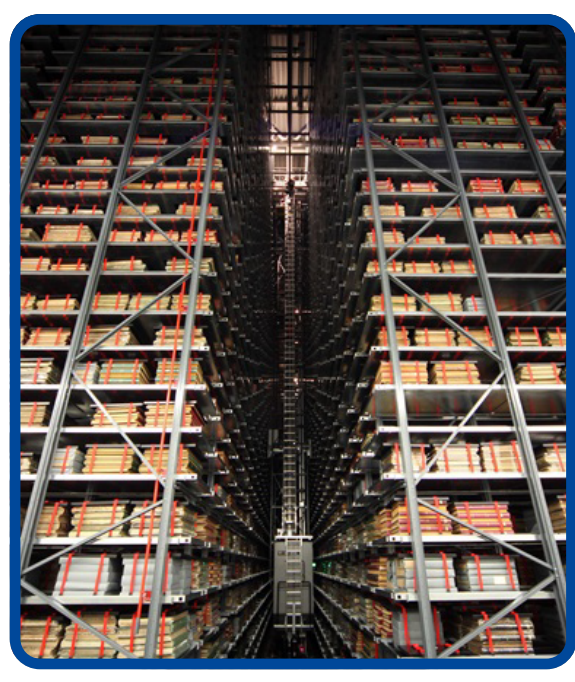
N8 CIR will be hosting an online meetup for research software engineering leaders and aspiring leaders in March.

The event will provide an opportunity for them to discuss developments and challenges, as well as collaboration opportunities across the N8 Research Partnership. Chris Woods, academic leader of Bristol University's RSE group, will join us to speak about his experience of RSE secondments, a presentation that will inform a planned discussion of ways of enhancing collaboration between RSE groups in the partnership.

Visit <https://n8cir.org.uk/events/rse-leaders-and-aspiring-leaders-event/> for details of how to book your place.

Computer Vision for the Humanities

Tuesday 13 April, 1.30-4.30pm



N8 CIR has partnered with Daniel van Strien of the British Library's 'Living with Machines' project to offer a special one-off training course in computer vision for the humanities.

The workshop will:

- Provide an introduction to deep learning-based computer vision methods for humanities research.
- Give an overview of the steps involved in training a deep learning model.
- Discuss some of the specific considerations around using deep learning/computer vision for humanities research.
- Help you decide whether deep learning might be a useful tool for you.

Full details, including course pre-requisites can be found on the event web page at: <https://n8cir.org.uk/events/computer-vision-humanities/>

Bede Introductory Event & Case Studies

At the end of January we hosted an online event introducing Bede, our new high-performance computing platform. At the event Marion Weinzierl, the projects research software engineering theme leader, introduced the system, the application process and outlined the support available to users.

The session then moved on to introduce case studies from researchers that are already using the system in their work. If you are thinking of applying for time on Bede to further your work these short videos may offer a useful insight into how existing users are utilising Bede's GPU-accelerated architecture.

The majority of the case studies from the day are now available on the N8 CIR website at: <https://n8cir.org.uk/events/event-resource/bede-intro-21/>

Case Studies

Our quick read case studies offer an overview of the work being undertaken by researchers, research software engineers and research infrastructure engineers across the N8 Research Partnership.

They highlight the benefits of working with research software engineers who have a unique understanding of both software and the rigours of academic research. This collaboration may help to facilitate a research breakthrough or simply enable a researcher to work with more data, or higher quality data, than was previously possible. You can read the RSE case studies here: <https://n8cir.org.uk/supporting-research/rse/case-studies/>

The page also includes our Bede case studies. These have been prepared with the help of researchers who are using, or plan to use, Bede's GPU-accelerated architecture to further their work.

Research infrastructure engineers work to ensure that the platforms, networks and hardware that facilitate and accelerate research are robust and dependable. They find innovative solutions to the everyday challenges posed by ever growing volumes of data, the potential of cloud computing and of course, remote working during a pandemic.

You can read our first RIE case studies here:

<https://n8cir.org.uk/supporting-research/rie/rie-case-studies/>

If you'd like to share the work you're doing in a case study, please e-mail: enquiries@n8cir.org.uk.

Bede Updates

Since Bede was opened to users on 10 December 2020 there has been a steady flow of applications to utilise the system. These have come from researchers working across the N8 Research Partnership and a significant number of projects granted time by HECBioSim as part of ongoing investigations into SARS-covid-19.

The registration process has been updated to make use of a web form rather than a PDF. If you submit a PDF application it will still be processed in the usual way. However, we would prefer it if future applications are made using the web form.

You can read more about Bede, its capabilities, support, and apply for system access through our website at: <https://n8cir.org.uk/supporting-research/facilities/bede/>

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