



RESEARCH SOFTWARE & SYSTEMS ENGINEERS IN AFRICA

Do you work in a research environment and spend a lot of your time coding or building infrastructure to support research computing and data storage?



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Why are RSSEs important?

Research Software and Systems Engineers play a critical role in the development and implementation of research software, i.e “software that is used to generate, process or analyse results... Research software can be anything from a few lines of code written by yourself, to a professionally developed software package.”

(Definition from SSI RSE Survey)

Most research would be impossible without software, and this reliance is forcing a rethink of the skills needed in a traditional research group. With the emergence of software as the pre-eminent research tool used across all disciplines, comes the realisation that a significant majority of results are based, ultimately, on the skill of the experts who design and build that software.

(Research Software Engineers: State of the Nation Report 2017, Bret et al.)

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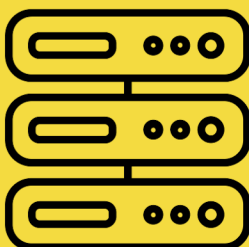
RSE and RSSE explained

The term Research Software Engineer was coined in 2012 in the UK as part of a campaign for supporting expert software developers in academia and as such sustainably developed, reliable, well-engineered research software.

We started RSSE Africa to include software and systems engineers.



Research Software Engineers combine professional software engineering expertise with research knowledge and skills to develop applied research software and scripts.



Research Systems Engineers, also known as Research Computing or HPC Engineers, combine research experience with computing, data, and networking infrastructure and architecture expertise. They often work with combinations of on- and off-site infrastructure, including cloud and high-performance computing, and networking solutions.

RSSEs include people who...

- Develop software for research
- Spend more time developing software than conducting research
- Are postdoctoral researchers who predominantly work on software development
- Mostly do coding or software development in a research group
- Have had to build a programme or software while doing research and then ended up doing more software development than research
- Support the use of local HPC facilities
- Support researchers with cloud infrastructure
- Develop specifications for compute/data infrastructure for research



We want to learn about our community members' diverse backgrounds, experiences, achievements and challenges.

[Sign up to be featured in our newsletter!](#)

<https://rsse.africa/>

How to get involved with RSSE Africa



Join our events

We meet virtually every 3rd Wednesday of the month on Zoom. There are opportunities to speak, organise, attend, and more!

Sign up to our mailing list

Ask questions, find out about opportunities and share resources, and much more via Topicbox.



Join our Slack channel

Connect with peers from across the world in the international RSE Slack workspace, where we also host a dedicated #rsse-africa channel.

Get mapped

We're trying to find all research software developers, funders, and other stakeholders on the continent and adding them to a database and interactive map. Add yourself to the list or share with others.



Subscribe to our newsletter

You're welcome to add your work to the newsletter by emailing us at rsse-africa@talarify.co.za



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Global RSE communities snapshot

Research Software Alliance

To advance the research software ecosystem by collaborating with decision makers and key influencers.



Get involved

- Join task forces focused on specific activities.
- Encourage your organisation to become an Organisational Member or make a donation

<https://www.researchsoft.org/>

Software Sustainability Institute

Cultivates better, more sustainable research software to enable world-class research. Help people build better software, and work with researchers, developers, funders and infrastructure providers to identify key issues and best practice in scientific software.



Get involved

- Apply to the SSI fellowship programme
- Explore their open & free resources

<https://software.ac.uk/>

Society of Research Software Engineering

Increasing software skills across research, promoting collaboration between researchers and software experts, supporting creation of academic career path for RSEs



Get involved

- Become a member to gain access to funding, discounts to participate in events, and mentorship opportunities
- Be active in the community

<https://society-rse.org/>

<https://rsse.africa/>