# N8 CIR 2025 RSE undergraduate internship programme – research project proposal

# Research IT, University of Liverpool, 2025-04-25. <https://www.liverpool.ac.uk/research-it/n8-internship>

The N8 CIR 2025 internship programme focusses on exposing undergraduates (rather than postgraduates or PhD students) to future career paths in research software engineering (RSE) - the professional development of research software. The programme offers up to three internship places at Liverpool, and at each of the eight computationally intensive research N8 universities.

The scheme is a unique opportunity for undergraduates in their penultimate or final year to work in **machine learning**, **digital health**, or **digital humanities**, while developing cutting-edge computational skills in a research environment. Work will be supervised by a research leader, with an RSE mentor providing comprehensive support. Interns will also gain though engagement and networking with fellow interns across the N8 universities.

Interns will usually work full-time at Liverpool for eight weeks, receiving wages near the national living wage, pro-rata; however, some flexibility exists for shorter, or part-time, positions for excellent candidates, or to accommodate those with time restrictions, e.g. childcare. Candidates may apply for consideration in multiple research areas.

Principal investigators (PIs) may describe a potential research project in *one* of the above research areas below. One project may be submitted per PI. For information purposes, a specific student may be nominated for the project. This will not impact project or student selection, as both will be considered separately. Selection factor weights are noted below. While Research IT will provide RSE support and largely manage the programme, research groups should provide a researcher with topic-specific software development expertise, who will be the intern's guide and first contact for technical queries. The PI may also act as this specialist.

Proposals should be sent to [rit-internship@liverpool.ac.uk](mailto:rit-internship@liverpool.ac.uk) before May 5th. Proposals received after this date will likely be too late to participate in the programme. Theme leads will select participating projects. PIs of successful proposals should be available for intern interviews around May 13th. Internship work will start from June 18th, with interns presenting final work in-person at the N8 CIR RSE project showcase, in York on September 12th. Financial support will be provided for interns for travel and accommodation, as necessary.

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| Project Name |  |
| Theme (Digital Health, Digital Humanities, or Machine Learning) |  |
| PI name |  |
| PI email |  |
| Department and faculty |  |
| Research-topic software development specialist: name and email (if not PI) |  |
| Project length, e.g. 8 weeks at 35 hours per week, ~12 weeks at 20 hours/week |  |
| If a nominated student is suggested, please give student name and email |  |

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| **1. Project overview (20% assessment weight)**  Please provide a brief project overview – understandable by a lay person and not exceeding 500 words – explaining why the project should be selected. |
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| **2. Project plan and timeline (10% assessment weight)**  Please provide a basic project plan and timeline to ensure that the project can be completed within 8 weeks (35 hours per week),12 weeks (20 hours per week), or either.  Plans should consider that students may have a right to work in the UK either full time (35 hours per week), or part-time (20 hours per week). Also, as interns will present their final work on September 12th, the majority of this should be finished before early September. |
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| **3. Workspace and tools (10% assessment weight).**  Does office space exist for the intern? Do others use this office space when the student will be in-office? (as relevant). Are these people in the same research group? Does a PC exist for the intern to use? What platforms, tools, packages, and programming languages will be used? Are licenses available for all software not readily available as an MWS application? |
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| **4. Research-topic software development specialist (30% assessment weight).**  Please elaborate on the selected research-topic software development specialist. How will this specialist be accessible for meetings with the intern? How much time will be allocated for intern support? How does the specialist’s technical background match the project needs? Is the specialist currently involved in similar research work, or teaching? |
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| **5. Intern requirements (10% assessment weight).**  Please outline the requirements for interns, including:   * Technical requirements – programming, platforms, libraries/packages, tools. * Topic-specific requirements, e.g. general topic or project-specific knowledge. * On campus attendance, availability, or participation in weekly work schedule. |
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| **6. Intern opportunities (20% assessment weight).**  Please outline how the project will be an opportunity for interns to:   * Improve software technology expertise, e.g. in languages, libraries/packages, tools, or software development process approaches. * Improve research-specific skills, e.g. modelling approaches, results assessment, data collection/scrutiny, or topic knowledge. * Improve team-working in software development or research.   How will this project advance the intern’s software development career – either inside or outside research? |
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