PhD with paid Research Assistantship in Social Network Analysis for Disaster Preparedness

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Latest version can always be found at
https://krivitsky.net/blog/job/disasterprep

PDF version for printing
https://krivitsky.net/blog/job/disasterprep/DisasterPrepPhD.pdf

Project Overview

Join a groundbreaking research initiative investigating how personal networks shape responses to compound natural hazard risks. Consecutive disasters—such as sequential floods or cyclones followed by heavy rainfall—are becoming more frequent and disruptive in Australia. While infrastructure and early-warning systems are vital, people's personal networks—the informal and formal social ties that connect us—are among the most powerful, yet least understood, tools for building resilience.

The overarching project will provide the first national-scale analysis of personal network attributes that enhance disaster preparedness and response. Findings will inform targeted efforts to strengthen community resilience and reduce vulnerability, delivering practical guidance for governments and practitioners.

You will work on the cutting-edge of network data collection and analysis, and develop, implement, and apply sophisticated statistical methods to better understand what makes people connect when faced with danger.

This work is funded by the Australian Research Council *Discovery Project* 2027 Scheme.

Role

As a part of your PhD and Research Assistantship, you will help design, implement, and analyse an online panel survey of personal networks and development; and you will work on methodology and tools for analysing network

surveys. This work will be conducted under the supervision of Dr Pavel N. Krivitsky at the School of Mathematics and Statistics at UNSW Sydney (`https://www.krivitsky.net`), with co-supervision by Dr Angela Guerrero Gonzalez (`https://www.qut.edu.au/about/our-people/academic-profiles/angela.guerrero`) and A/Prof Michele Barnes (`https://profiles.sydney.edu.au/michele.barnes`).

Key Dates

27 March 2026: Contact Dr Krivitsky `<p.krivitsky@unsw.edu.au>` for full consideration

17 April 2026: UNSW PhD Scholarship application due

25 July − 8 August 2026: UNSW PhD Scholarship offers released

Between September 2026 and February 2027: Starting date (as candidate prefers)

Requirements

Skills

Required

- Intermediate programming skills
- Undergraduate statistics coursework

Preferred

- Programming skills in R, C, HTML, and JavaScript
- Coursework or experience in statistical inference and survey design and analysis

Qualifications

Required   In order to be considered for a PhD in Mathematics and Statistics by UNSW, the candidate is required to have an Honours or Master's degree in statistics, quantitative sociology, mathematics, computer science, or a related discipline. Equivalent qualifications, such as a 4-year Bachelor's degree with a thesis component or publications, are also accepted.

There are no security clearance or citizenship requirements or restrictions, and the research is not classified. However, note that UNSW may require proof of English proficiency for international candidates (`https://www.international.unsw.edu.au/english-language-requirements`).

Preferred   The ideal candidate will have First-Class Honours and would be a citizen or a permanent resident of Australia or a citizen of New Zealand, as this maximises the chances of a successful scholarship application. Although

the scholarship is easier to win Australian/NZ citizens and permanent residents, strong international applicants are still encouraged to apply, particularly if self-funded or with external funding options.

Remuneration

As of 2026, the UNSW PhD scholarship comes with a stipend of 39,206 per year for 3.5 years, with an additional $5,000 top-up provided by the School of Mathematics and Statistics. See `https://www.unsw.edu.au/research/hdr/scholarships` for more information.

The remuneration for this Research Assistant role will be commensurate with experience and aligned with the project timeline, with tentative funding allocated for up to a few days per week over 12 months.

Applying

If you have any questions, please don't hesitate to contact Dr Krivitsky `<p.krivitsky@unsw.edu.au>`. For full consideration, please submit, by **27 March**:

- CV;
- academic transcripts;
- contact information for at least two referees; and
- any other information you would like to provide.

To ensure that your enquiry receives prompt attention, please include `Disaster Preparedness` in the Subject.