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|  **Position Description** |

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| **College/Division:** | College of Engineering & Computer Science |
| **School/Centre:**  | Research School of Computer Science |
| **Position Title:**  | Research Fellow |
| **Classification:** | Academic Level B |
| **Position No:** | TBC  |
| **Responsible to:** | Kee Siong Ng |

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| **PURPOSE STATEMENT:**The ANU College of Engineering and Computer Science (CECS) is one of the premier engineering and computer science research institutions in the world. Comprising the Research School of Computer Science (RSCS) and the Research School of Engineering (RSEng), both are recognised as research leaders in their respective areas continuing the ANU tradition of excellence in research and research-led education.  RSCS and CSIRO’s Data61 have been funded by the Australian government to develop an open-source and scalable graph analytics platform in partnership with key public-service agencies in the security domain. We are seeking two Research Fellows to join the project and contribute to cutting-edge research on Integrated Graph Analytics algorithms that span the sense-think-act cycle of Intelligent Agents. KEY ACCOUNTABILITY AREAS Position Dimension & Relationships: The position is located within the Research School of Computer Science. As an academic member of the Research School of Computer Science, the appointee will be required to contribute to research, education and outreach agendas of the School both nationally and internationally in a manner that is appropriate to the level of appointment. They will also be expected to contribute cooperatively to the overall intellectual life of the School, College and University.Role Statement (Academic Level B):In their role as ANU academic level B in the Research School of Computer Science the appointee will be required to:1. Perform innovative and impactful research in the area of Large-Scale Machine Learning on Graphs, including the design of scalable algorithms for solving entity resolution, probabilistic inference, pattern mining, and sequential decision theory problems on graph data.
2. Collaborate closely with the software engineering team to produce robust implementations of novel algorithms as part of an open-source software project.
3. Collaborate closely with industry stakeholders and the research and engineering teams to solve real-world machine-learning problems on graphs.
4. Identify and pursue opportunities for external funding to support a broader research agenda in Applied Data Science in the Intelligence, Law Enforcement and National Security space.
5. Contribute to the research activities of the School in areas related to data science with a view to publishing original and innovative results in international peer-reviewed publications, presenting research at academic seminars and at prestigious international conferences, and collaborating with other researchers at an international level.
6. Contribute to the education programs of the School, particularly with regard its data science and machine learning activities and their relevance to industry and government.
7. Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels and graduate research students.
8. Lead, supervise and develop less senior academic and research support staff in the School.
9. Contribute to all aspects of the operation of the School, College and University more broadly.
10. Lead and initiate community outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
11. Maintain and actively promote high academic standards in all education, research and administration endeavours undertaken by the School, the College and the University.
12. Take responsibility for their own workplace health and safety and not wilfully place at risk the health and safety of another person in the workplace
13. Other duties as required consistent with the classification level of the position.
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| **Selection Criteria (Academic Level B):**1. A PhD in computer science or a related area with a track record of independent research in the fields of Entity Resolution, Probabilistic Inference, Graph Pattern Mining, Sequential Decision Theory or related areas, as evidenced by publications in peer-reviewed journals and conferences, a record of developing research collaborations, and by other measures such as awards and invited talks.
2. A track record in delivering significant data science projects through collaborations with a wide range of stakeholders with different backgrounds.
3. Experience with industrial-scale software development projects, ideally with contributions to open-source software projects.
4. Ability to set and contribute to the education agenda of the School particularly in data science and in relation to the skills and knowledge development needs of government and industry
5. Capacity to win competitive bids and tenders for funding to support individual and collaborative research and/or education related activities.
6. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
7. The capacity of the appointee to enhance and support diversity within the School.
8. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of these policies in a University context.
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| **Supervisor Signature:** |  | **Date:** | 9 November 2018 |
| Printed Name: | Kee Siong Ng  | **Uni ID:** | U9914730 |

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| **References:** |
| [General Staff Classification Descriptors](http://info.anu.edu.au/hr/Salaries_and_Conditions/Enterprise_Agreement/2010-2012/Schedule_5) |
| [Academic Minimum Standards](http://info.anu.edu.au/hr/Salaries_and_Conditions/Enterprise_Agreement/2010-2012/Schedule_4) |

**Pre-Employment Work Environment Report**

Please note the Pre-Employment Work Environment Report form must be completed by the supervisor of the advertised position and provided electronically and separately, as it will be uploaded into the ANU Recruit system and available for applicants to download when reviewing the position documentation. Without this form jobs cannot be advertised.

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|  | Pre-Employment Work Environment Report |

# Position Details

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| **College/Div/Centre** | CECS | **Dept/School/Section** | RSCS |
| **Position Title** | Research Fellow | **Classification** | Academic Level B |
| **Position No.** | TBC  | **Reference No.** | N/A |

In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

1. This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
2. This form is used to advise potential applicants of work environment issues prior to application.
3. Once an applicant has been selected for the position consideration should be given to their inclusion on the University’s Health Surveillance Program where appropriate – see . http://info.anu.edu.au/hr/OHS/\_\_Health\_Surveillance\_Program/index.asp Enrolment on relevant OHS training courses should also be arranged – see http://info.anu.edu.au/hr/Training\_and\_Development/OHS\_Training/index.asp
4. ‘Regular’ hazards identified below must be listed as ‘Essential’ in the Selection Criteria - see ‘ Employment Medical Procedures’ at http://info.anu.edu.au/Policies/\_DHR/Procedures/Employment\_Medical\_Procedures.asp

# Potential Hazards

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| 1. Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.
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| **TASK** | **regular** |  | **occasional** |  | **TASK** | **regular** |  | **occasional** |
| key boarding | [x]  |  | [ ]  |  | laboratory work | [ ]  |  | [ ]  |
| lifting, manual handling | [ ]  |  | [ ]  |  | work at heights | [ ]  |  | [ ]  |
| repetitive manual tasks | [ ]  |  | [ ]  |  | work in confined spaces | [ ]  |  | [ ]  |
| catering / food preparation | [ ]  |  | [ ]  |  | noise / vibration | [ ]  |  | [ ]  |
| fieldwork & travel | [ ]  |  | [ ]  |  | electricity | [ ]  |  | [ ]  |
| driving a vehicle | [ ]  |  | [ ]  |  |  |  |  |  |
| **NON-IONIZING RADIATION** |  |  |  |  | **IONIZING RADIATION** |  |  |  |
| solar | [ ]  |  | [ ]  |  | gamma, x-rays | [ ]  |  | [ ]  |
| ultraviolet | [ ]  |  | [ ]  |  | beta particles | [ ]  |  | [ ]  |
| infra red | [ ]  |  | [ ]  |  | nuclear particles | [ ]  |  | [ ]  |
| laser | [ ]  |  | [ ]  |  |  |  |  |  |
| radio frequency | [ ]  |  | [ ]  |  |  |  |  |  |
| **CHEMICALS** |  |  |  |  | **BIOLOGICAL MATERIALS** |  |  |  |
| hazardous substances | [ ]  |  | [ ]  |  | microbiological materials | [ ]  |  | [ ]  |
| allergens | [ ]  |  | [ ]  |  | potential biological allergens | [ ]  |  | [ ]  |
| cytotoxics | [ ]  |  | [ ]  |  | laboratory animals or insects | [ ]  |  | [ ]  |
| mutagens/teratogens/carcinogens | [ ]  |  | [ ]  |  | clinical specimens, including blood | [ ]  |  | [ ]  |
| pesticides / herbicides | [ ]  |  | [ ]  |  | genetically-manipulated specimens | [ ]  |  | [ ]  |
|  |  |  |  |  | immunisations | [ ]  |  | [ ]  |
| **OTHER POTENTIAL HAZARDS (please specify):** |

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| **Supervisor’s Signature:**  |  | **Print Name:** | Alistair Rendell | **Date:** | 9 Nov 2018 |