

Position Description

Research Associate – Data Science

Position Number: TBC Position Title: Research Associate – Data Science Date Written: August 2020 Faculty / Division: UNSW Canberra School / Unit: School of Engineering & Information Technology (SEIT) Position Level: Level A

ORGANISATIONAL ENVIRONMENT

UNSW is currently implementing a ten-year strategy to 2025 and our ambition for the next decade is nothing less than to establish UNSW as Australia's global university. We aspire to this in the belief that a great university, which is a global leader in discovery, innovation, impact, education and thought leadership, can make an enormous difference to the lives of people in Australia and around the world.

Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

To achieve this ambition, we are attracting the very best academic and professional staff to play leadership roles in our organisation.

VALUES IN ACTION: OUR UNSW BEHAVIOURS

UNSW recognises the role of employees in driving a high-performance culture. The behavioural expectations for UNSW are below.





Delivers high performance and demonstrates service excellence.



Thinks creatively and develops new ways of working. Initiates and embraces change.



Works effectively within and across teams. Builds relationships with internal and external stakeholders to deliver on outcomes.



Values individual differences and contributions of all people and promotes inclusion.



The Research Associate position is situated within the School of Engineering & Information Technology. As a member of a research team, the Research Associate will undertake research as directed by the Team Leader. The position will also support the development of a new Artificial Intelligence and Data Science Education Capability at the University and will contribute to the delivery of hands-on data science courses and provide supervision and academic support to undergraduate and postgraduate students as appropriate.

The Research Associate role reports to Professor Hussein Abbass, Chief Investigator (CI) of the project.

RESPONSIBILITIES

Specific responsibilities for this role include:

- 1. Conduct research as directed by the CI.
- 2. Contribute to the design of new and/or update of existing curriculums and teaching materials, and assist in delivering high-quality artificial intelligence and data science related courses.
- 3. Prepare reports summarizing the results gained from the research and journal and conference publications based on the research.
- 4. Contribute to the preparation of research proposal submissions to external funding bodies.
- 5. Attend meetings with the department of defence as directed by the immediate line of management.
- 6. Interact with undergraduate and postgraduate students and assist in their supervision, and as appropriate offer advice and technical support to research theses conducted by undergraduate and postgraduate students within the field of the staff member's area of research.
- 7. Undertake a range of administrative tasks as directed.
- 8. Contribute to the common activities of the School, Faculty and University.
- 9. Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.

SELECTION CRITERIA

- 1. A PhD in artificial intelligence, data science, or a relevant discipline.
- 2. A demonstrated ability to conduct innovative and independent research.
- 3. A record of papers in high quality journals and/or conferences of high ranking in the field.
- 4. Ability to contribute to courseware development and conduct high quality teaching in a University environment.
- 5. Excellent interpersonal, oral and written communication skills appropriate for interacting effectively team members, collaborators and colleagues across the Faculty.
- 6. Demonstrated ability to work as a member of a multi-disciplinary team showing initiative and taking direction as appropriate to the situation.
- 7. Demonstrated ability to complete tasks within agreed time frames, with suitable supervision.
- 8. Knowledge of health and safety responsibilities and the ability and capacity to implement required UNSW health and safety policies and procedures.



Position Description Research Fellow – Data Science

Position Number: TBC Position Title: Research Associate – Data Science Date Written: August 2020 Faculty / Division: UNSW Canberra School / Unit: School of Engineering & Information Technology (SEIT) Position Level: Level B

ORGANISATIONAL ENVIRONMENT

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Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

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Delivers high performance and demonstrates service excellence.

Thinks creatively and develops new ways of working. Initiates and embraces change.

Works effectively within and across teams. Builds relationships with internal and external stakeholders to deliver on outcomes.

Values individual differences and contributions of all people and promotes inclusion.

The Research Fellow position is situated within the School of Engineering & Information Technology. As a member of a research team, the Research Fellow will conduct research as guided by the Team Leader. The position will also contribute to the development of a new Artificial Intelligence and Data Science Education Capability at the University and will deliver hands-on data science courses and provide supervision and academic support to undergraduate and postgraduate students.

The Research Fellow role reports to Professor Hussein Abbass, Chief Investigator (CI) of the project.

RESPONSIBILITIES

Specific responsibilities for this role include:

- 1. Conduct research in consultation with the CI.
- 2. Prepare reports summarising the findings gained from research and prepare research proposals for submission, including applications for external funding.
- 3. Undertake high-quality teaching in artificial intelligence and data science related courses.
- 4. Develop new and review existing course/ educational material as appropriate.
- 5. Supervise and provide training and support to higher degree research students as appropriate.
- 6. Assist in the supervision of PhD students and honours students.
- 7. Attend meetings with the department of defence as directed, attend departmental and faculty meetings, and hold membership on university committees and participate in professional activity as appropriate.
- 8. Undertake a range of administrative tasks as directed.
- 9. Ensure hazards and risks are identified and controlled for tasks, projects and activities that pose a health and safety risk within your area of responsibility.

SELECTION CRITERIA

- 1. A PhD in artificial intelligence, data science, or a relevant discipline.
- 2. A demonstrated ability to work positively and cooperatively in a teaching and research-intensive environment.
- 3. An emerging record of excellence in research and publication in artificial intelligence and data science.
- 4. An emerging track-record for securing research support from competitive grant schemes.
- 5. A demonstrated ability to undertake quality teaching of both introductory and specialist courses at undergraduate and postgraduate level.
- 6. The ability to undertake courseware development and apply new and innovative methods for teaching.
- 7. Excellent interpersonal, oral and written communication skills appropriate for interacting effectively team members, collaborators (industry, business, government, defence, and or professional organisations) and colleagues across the Faculty.
- 8. A demonstrated ability to successfully supervise research students.
- 9. Ability and capacity to implement required UNSW health and safety policies and procedures.



Position Description Senior Research Fellow – Data Science

Position Number: TBC Position Title: Senior Research Fellow – Data Science Date Written: August 2020 Faculty / Division: UNSW Canberra School / Unit: School of Engineering and Information Technology (SEIT) Position Level: Level C

ORGANISATIONAL ENVIRONMENT

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Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

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Delivers high performance and demonstrates service excellence.

Thinks creatively and develops new ways of working. Initiates and embraces change.

Works effectively within and across teams. Builds relationships with internal and external stakeholders to deliver on outcomes.

Values individual differences and contributions of all people and promotes inclusion.

The Senior Research Fellow position is situated within the School of Engineering & Information Technology. As a member of a research team, the Senior Research Fellow will conduct research as required by the Project. The position will develop new and enhance Artificial Intelligence and Data Science Education Capability at the University and will deliver hands-on data science courses and provide supervision, leadership, and academic support to undergraduate and postgraduate students.

The Senior Research Fellow role reports to Professor Hussein Abbass, Chief Investigator (CI) of the project.

RESPONSIBILITIES

Specific responsibilities for this role include:

- 1. Conduct high-quality research in Artificial Intelligence and Data Science.
- 2. Summarise the findings gained from research, publish research in appropriate scholarly outlets, and attract external research funding in support of this research.
- 3. Provide high-quality teaching in teaching in artificial intelligence and data science related courses.
- 4. Create and Develop teaching materials, deliver lectures, tutorial and laboratory classes, supervise undergraduate projects and conduct assessment.
- 5. Develop new and review existing course/ educational material.
- 6. Supervise/ Co-supervise higher degree research students and provide training and advice as appropriate.
- 7. Attend meetings with the department of defence as directed, attend departmental and faculty meetings, and hold membership on university committees and participate in professional activity as appropriate.
- 8. Undertake high level administrative functions within the Research Team, School and within UNSW Canberra.
- 9. Contribute to and promote the activities of the School, Faculty and University.
- 10. Ensure hazards and risks are identified and controlled for tasks, projects and activities that pose a health and safety risk within your area of responsibility.

SELECTION CRITERIA

- 1. A PhD in artificial intelligence, data science, or a relevant discipline.
- 2. Demonstrated synergy with current School research and education priorities, High Impact Strategic Themes, School Capabilities or Associated Research Centres or the capacity to develop synergy and collaborate in these areas.
- 3. Ability to undertake an internationally competitive research program in a relevant area appropriate to the level of appointment, demonstrated by achievement across the following:
 - Ability to conduct an independent research program including emerging record of excellence in research and publication (as measured by SNIP, SJR, h-index, m-index, FWCI etc)
 - o Ability to seek funding for this research program
 - o Ability to conduct research supervision
- 4. Ability to deliver high quality teaching at undergraduate and postgraduate level in a relevant discipline, demonstrated by evaluative feedback on classroom teaching.
- 5. Ability to develop course content demonstrated by evaluative feedback on course/program development.
- 6. Ability to apply new and innovative methods for teaching.
- 7. Excellent interpersonal, oral and written communication skills and a record of successful interaction with industry, business, government, defence, and or professional organisations.
- 8. Ability and capacity to implement required UNSW health and safety policies and procedures.



Position Description

Associate Professor – Data Science

Position Number: TBC Position Title: Associate Professor – Data Science Date Written: August 2020 Faculty / Division: UNSW Canberra School / Unit: School of Engineering and Information Technology (SEIT) Position Level: Level D

ORGANISATIONAL ENVIRONMENT

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Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

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Works effectively within and across teams. Builds relationships with internal and external stakeholders to deliver on outcomes.



Values individual differences and contributions of all people and promotes inclusion.



The Associate Professor position is situated within the School of Engineering & Information Technology. As a member of a research team, the Associate Professor will conduct research as required by the Project. The Position will increase the School's capacity for research, teaching and higher degree research supervision. The Position will also be expected to contribute to the School's teaching program through the leadership, course delivery, course development, and developing new teaching opportunities for the School.

The Position will contribute to the strategic vision and to the research performance of the School and UNSW Canberra more broadly. The Associate Professor position will also be expected to develop linkages with researchers from other Schools within UNSW Canberra and with the broader scholarly and practitioner communities.

The Associate Professor role reports to Professor Hussein Abbass, Chief Investigator (CI) of the project.

RESPONSIBILITIES

Specific responsibilities for this role include:

- 1. Provide leadership in Artificial Intelligence and Data Science within the research team and more broadly at UNSW Canberra.
- 2. Conduct an active program of research in Artificial Intelligence and Data Science.
- 3. Make a significant contribution to teaching and curriculum development at both undergraduate and postgraduate levels, particularly in Artificial Intelligence and Data Science.
- 4. Attract higher degree research candidates.
- 5. Supervise postgraduate research projects.
- 6. Develop linkages with researchers from other Schools within UNSW Canberra and build partnerships with industry, government, practitioner communities and scholars outside of the School.
- 7. Attend meetings with the department of defence as required.
- 8. Seek and achieve high levels of external support and research funding.
- 9. Support and contribute to the maintenance of academic standards within the School and develop educational curriculum within discipline areas.
- 10. Undertake high level administrative functions within the School and within UNSW Canberra.
- 11. Implement the UNSW Health and safety management system within your area of responsibility.

SELECTION CRITERIA

- 1. A PhD in a relevant discipline and an outstanding record of research related to Artificial Intelligence and Data Science evidenced by achievement across:
 - \circ Publication.
 - Funding.
 - Research supervision.
 - Leadership within a significant research group and ability to undertake external engagement and to manage research projects with external partners.
- 2. An excellent record in university teaching in Artificial Intelligence and Data Science, demonstrated by:
 - o Classroom teaching.
 - Course/program development.
 - Leadership.

- 3. A record of effective contribution to university administration, evidenced through duties/activities such as:
 - Administration of a research group and/or leadership in managing higher degree by research student supervision.
 - o Leadership of university committees and/or senior administrative role at School/Faculty level.
- 4. Strong communication, negotiation and listening skills, demonstrated by A record of successful interaction with industry, business, government, defence, and or professional organisations.
- 5. Outstanding record of high-level leadership and mentoring of junior staff.
- 6. Ability and capacity to direct and monitor the implementation and effectiveness of the safety management system.