Position Summary

One of the growing focus areas in the School of Computer Science and Engineering (CSE) in using data in ways to make a positive impact in society. Research in databases and data mining is integral to areas such as cybersecurity, AI or more broadly the creation of critical digital infrastructures.

Today, big data management and analytics, data storage, indexing, querying, real-time processing and monitoring are key to the development of efficient and scalable techniques for large-scale data from heterogeneous sources. Existing research in CSE in this area has explored, real-time spam and fraud detection, graph processing, distributed data processing, predictive modelling, intrusion detection, malware and anomaly detection and knowledge graphs.

The purpose of this role is to conduct independent research and deliver excellent teaching in the areas of databases and/or data mining and to develop solutions for new challenging problems in big data and analytics.

The role of Lecturer reports to Head of School, Professor Aaron Quigley and has nil direct reports.

Accountabilities

It is expected that the appointee will progress on a continual satisfactory and upward trajectory in their performance and specific performance expectations will be set individually with the Head of School/Supervisor. Specific responsibilities for the role of Lecturer (Level B) include (but not limited to):

- Conduct research of high quality and high impact including attainment of competitive government and industry research funding and publication of outcomes in high quality research outlets.

- Deliver high quality teaching and student experience utilising sound pedagogical methodologies and innovative technologies and from time to time, deliver teaching across a broad engineering discipline.
• High quality supervision of major honours and postgraduate research projects.
• Actively engage with industry and the community to develop significant productive relationships, attract industry funding and participate in professional activities.
• Work collaboratively with peers across the Faculty and UNSW in all aspects of academic endeavour and contribute to mentoring of other staff.
• Involvement in broad administrative functions of the School and/or University, coordination of subjects, attend departmental and/or faculty meetings, involvement in Open Days and recruitment activities and play a major role in planning and/or committee work or other responsibilities, as directed by the Head of School.
• Align with and actively demonstrate the UNSW Values in Action: Our Behaviours and the UNSW Code of Conduct.
• 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.

Skills and Experience
Applicants from industry and professional backgrounds should demonstrate their equivalent level of standing as demonstrated by professional experience.

Lecturer
• PhD in Computer Science or relevant discipline.
• Demonstrated experience in the area of database and/or data mining with a special focus on:
  o graph data processing and mining,
  o spatial data processing and mining,
  o distributed and parallel processing,
  o data provenance and data cleaning,
  o data streaming processing,
  o uncertain and approximate databases,
  o AI4DB,
  o DB4AI,
  o and workflow data management.
• Demonstrated track record in research with outcomes of high quality and high impact with clear evidence of the desire and ability to continually achieve research excellence as well as the capacity for research leadership.
• Demonstrated ability and willingness to deliver high quality and innovative teaching and student experience to both undergraduate and postgraduate students.
• A track record of significant involvement with the profession and/or industry.
• High level communication skills and ability to network effectively and interact with a diverse range of students and staff.
• Demonstrated ability to work in a team, collaborate across disciplines and build effective relationships.
• Willingness to undertake any compliance and supervisor training as required.
• An understanding of and commitment to UNSW’s aims, objectives and values in action, together with relevant policies and guidelines.
• Ability and capacity to implement required UNSW health and safety policies and procedures.

PRE EMPLOYMENT CHECKS REQUIRED FOR THIS POSITION
Verification of qualifications

About this document
This Position Description outlines the objectives, desired outcomes, key responsibilities, accountabilities, required skills, experience and desired behaviours required to successfully perform the role.

This template is not intended to limit the scope or accountabilities of the position. Characteristics of the position may be altered in accordance with the changing requirements of the role.