[Important!] If you intend to select this project – you need to get pre-approval from the project client by the following steps:

1. Form a group that meets the requirement of the following **Specific required knowledge, skills, and/or technology** section.
2. Send the latest transcripts and the CVs of all group members in one email to caren.han@sydney.edu.au for consideration.
3. Once you get the client's pre-approval email, forward it to cs.capstone@sydney.edu.au
4. Only students/groups who are approved by the client, will be allocated to this project (you still need to submit it as your first preference).

Project number: CS62

Maximum number of groups can accept: 4 groups

Project Client: School of Computer Science

Project Title: Document Form Understanding using Multi-modal Deep Learning Approach

Project Description and Scope:

The form is a commonly used document type in many functional areas such as medical, academic, and financial. It contains rich textual and visual information based on semi-structural formats. Extracting information from multi-style or cross-domain forms is challenging for computer science researchers, as existing small-scale form understanding datasets cannot meet the demands of applying novel deep learning mechanisms in this area. In addition, existing datasets did not define the sequential procedures of form understanding. In this case, this project intends to present a new large-scale form understanding dataset based on real-world financial documents, which will explicitly define several critical tasks, including form information extraction, layout analyzing and entity relation prediction.

Expected outcomes/deliverables:

Either

1) Document Form Understanding Dataset and Approach

Or

2) Document Form Understanding System

Specific required knowledge, skills, and/or technology:

Student has done COMP3X08 (Introduction to Artificial Intelligence) or COMP5318 (Machine Learning) or equivalent, and prepare to take COMP5046 (Natural Language Processing)

Related general fields/disciplines:

NLP;Data Science/Analytics;Software Development;