Intersectional data analysis of organisational employee data to promote equity and inclusion

Title	Intersectional data analysis of organisational employee data to promote equity and inclusion
Description	Organisations can make better decisions when backed by evidence in the form of good data analysis, to be truly equitable and inclusive, when it comes to their policies, procedures and practices. This project requires you to determine which characteristic or combination of characteristics causes inequity in the context defined below. You would validate your methodology on for example, WGEA data sets on employees can also be accesses at data.gov.au - beta. Furthermore, you would generate synthetic data sets that mimic the data a typical company will hold. And apply your model to these synthetic data sets. The validated methodology would be the outcome of this project. And outputs will include the methodology as well as the synthetic data sets. The inequity analysis would be to look at how policies and procedures impact workforce on - Salary - Career progression (recruitment, retention, advancement) - Working hours and conditions - Training - Culture: psychological safety, physical safety etc. The characteristics to look across would be gender, age, ethnicity (inference made from name, country of citizenship), education and the intersections of these. The data sets you create would include, 1. For example, the information, WGEA asks companies to submit information about their policies and procedures through a submission - see link. 2. Information a company has on it's employees can be used to analyse things like pay including: name, role, position, salary, time in service, location, country of citizenship, gender, age, education. Other demographic data that may or may not be available would be sexual orientation, disability, ethnicity, religion, etc.). 3. Cultural survey tools results that most companies conduct (for example, see link.) Expected outcomes for the project upon completion *
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Preparation required by students prior to initial meeting (if any)	
Additional Notes by Host Organisation	Students should be interested in social justice. They can read the following resources: Employer Gender Pay Gap Technical Guide WGEA https://www.unwomen.org/en/digital-library/publications/2022/01/intersectionality-resource-guide-and-toolkit
Course Name	Master of Data Science
What datasets are available and in what format will they be provided?	The data sets are publicly available from data.gov.au - beta This is a central source of Australian open government data. Anyone can access the public data published by federal, state and local government agencies. Students will also be able to access the WGEA data explorer where analysis of the data is publicly available from the website along with various visualisation .
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