

JAMES LIANG

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EDUCATION

Monash University

Bachelor of Computer Science and Commerce

Expected Nov 2025

Data Science and Econometrics

- GPA: 4.0/4.0, WAM: 88.609
- Activities: CCA, Monash Human Power, 180 Degrees Consulting, Global Victoria Intellect Program

EXPERIENCE

Undergraduate Vacation Scholar

CSIRO's Data61

Nov 2023 - Feb 2024

With Dr Hui Zheng

- R&D for a Large Language Model Approach to Topic Taxonomy Completion for literature review streamlining.
- Applied statistical and NLP methods such as TF-IDF to solve token limitations and computational costs.
- Development experimentations outperformed existing research paper methodologies in 5 out of 6 evaluation metrics, including F1 scores, recall and precision.

Programming Tutor

Monash University Bootcamp

Jul 2022 - Jul 2023

- Delivered modules covering fundamental Python concepts and best coding practices.
- Facilitated and led group discussions to encourage peer learning and teamwork.

Volunteer Tech Consultant

180 Degrees Consulting — *with Red Nose Australia*

Feb 2023 - Jul 2023

- Developed the Red Nose Australia Mobile App, contributing to essential design features with CSS and HTML.
- Delivered a tangible product with high social impact. Awarded Best Content and Best Speaker.

COMMUNITY & LEADERSHIP

Publications Director

Computing Commerce Association (CCA)

Aug 2023 - Present

[Website](#)

- Led the first publication of CCA's First Year Guide to support students with their transition into University.
- Coordinated across portfolio teams to deliver timely and relevant publications of interest!

PROJECTS

TopicGemini — *Python, Topic Modelling, Langchain, Embeddings, Clustering*

[GitHub](#)

- Leveraged Large Language Models to improve existing Topic Modelling methods.
- Utilised Langchain for Topic Extraction and K-cluster determination after Kmeans on word2vec embeddings.
- Implemented Retrieval Augmented Generation (RAG) for finer granularity topic extraction (for user interest).

Animal-Crossing-Sentiments — *R, Sentiment Analysis, Statistics*

[GitHub](#)

- Implemented Bag of words-based approach for sentiment analysis into Nintendo's franchise: Animal Crossing.
- Utilised wordClouds and other visualisations to reveal explanations behind the low review scores of the game.

SKILLS

Technical Skills

Python, SQL, R

Tools

Scikitlearn, Pandas, NLTK, Gensim, Tensorflow

Misc

Git, Excel, Canva