

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

- Utilised Python with OpenAI API to integrate large language models into a taxonomy completion framework.
- Integrated statistical methods such as TF-IDF alongside LLM prompt-based queries for token efficiency.
- Developed experimental framework and executed tests that outperformed existing research methodologies in 5 out of 6 evaluation metrics, including F1 scores, recall, precision.

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.
- Prepared presentation materials, including slides, reports, and deliverables, ensuring clarity and professionalism.
- Successfully delivered a tangible product with high social impact. Awarded Best Content and Best Speaker.

Programming Tutor

Monash University Bootcamp

Jul 2022 - Jul 2023

- Delivered modules covering fundamental Python concepts and best coding practices to undergraduate students.
- Collaborated with fellow tutors to exchange ideas, share resources, and enhance the overall program.

COMMUNITY & LEADERSHIP

Publications Director

Computing Commerce Association (CCA)

Aug 2023 - Present

[Website](#)

- Planned and executed strategies to promote club publicity, increasing member base by 15%, through leading new initiatives such as the Newsletter Relaunch and First Year Guide.
- Cross collaborated across team portfolios to further club agendas, whilst fostering a fun team culture.

PROJECTS

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

[GitHub](#)

- Utilised Python with Gemini API to improve existing cluster based approaches to topic modelling.
- Developed a novel framework for recursive topic discovery, by integrating LLMs for k-cluster determination, and merging topic clusters.
- Implemented Retrieval Augmented Generation (RAG) for finer granularity topic extraction.

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

[GitHub](#)

- Implemented Bag of words-based approach for sentiment analysis into Nintendo's Animal Crossing.
- Utilised wordClouds and other visualisation tools to reveal explanations behind the contradictory review scores given by professional critics and casual gamers.

SKILLS

Technical Skills

Python, SQL, R, HTML, CSS

Tools

Scikitlearn, Pandas, NumPy, NLTK, Gensim