

# TAIC LLM/AI project

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# Who (am I)

- Graduated from Massey University with Computer Science, Maths and Statistics
- Grown up playing computers and loving utilizing their abilities
- Want to build a better future through the power of computers

Where (did this project come from)

# What (is this project about)

Project is about:

- Accessing the knowledge that is represented in TAIC legacy reports
- Providing consistent and repeatable semantic analysis/search of both legacy and new TAIC reports

# How (does the solution work)

- Uses off the shelf technology from OpenAI
- The project is made up of two main components
  - An "engine" - This is analogous a person who has read all of the reports
  - A "viewer" - This is how you talk to and interact with that person

# How (does the engine work)

1. Get all the reports from the website
2. Identify safety themes present in each report
3. Identify and consolidate the general safety themes present across all reports
4. Describe how much each general safety theme contributed to a particular accident analysis

# Why (Can we trust it)

- Statistical validation
- Evidence and references in output
- Treat it just like a colleague where you will check anything they say

# Example 1

Accident has just happened

Capsized boat

Capsize of a charter vessel

Human error



# Example 2

A deep dive into human related error

We want to look at all the reports from the last few years that involve human error of some sort.

# Example 3

Want to create a report of the recent reports for a particular year

They want to understand the a years worth of TAIC reports.

# Further work

- Still a prototype
- Many avenues to explore

# Making the engine better

- Expanding the database to include other transports agencies reports. For example ATSB
- Further validation of the theme generation and weightings of the engine.
- Add in admin dashboard to the webapp to allow no-code controlling of the engine and the running of it.
- And many more

# Making the viewer better

- Add the extraction of more information from the reports. This would allow the viewer to filter on more nuanced idea like fatalities or location.

Any questions?