Reflective Report

Design and Creative Technologies

Torrens University, Australia

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1. Introduction and Overview

The idea of developing this system to present on this assessment came after briefly discussing the goal of the challenge with lecturer Dr. James Vakilian, where it was clearly stated that it was expected that the delivered project not only made the desired calculations but also allowed anyone to input matrices on it and get the desired result.

My take after getting that was very straight forward: I would create a web application that would be hosted on the cloud and users could enter, input their desired calculations, click on the button and experience a nice interface and experience following the Software Engineering Principles I learnt at previous term at Torrens University.

I've chosen Streamlit to host the frontend of my application while running pure python on the background for calculation. The approach presented follows a layered architecture with presentation layer using Streamlit, business logic layer using pure python (which could be optimized on the future for Flask or FastAPI), and the persistence layer being used by cloud streamlit storing data in memory only.

2. Mathematical Approach

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3. Programming Methods

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4. What Went Right

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5. What Went Wrong

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6. Uncertainties

... support to 5x5 and more...

7. Conclusion

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Statement of Acknowledgment

I acknowledge that I have used the following AI tool(s) in the creation of this report:

- OpenAI ChatGPT (GPT-5): Used to assist with outlining, refining structure, improving clarity of academic language, and supporting APA 7th referencing conventions.

I confirm that the use of the AI tool has been in accordance with the Torrens University Australia Academic Integrity Policy and TUA, Think and MDS's Position Paper on the Use of AI. I confirm that the final output is authored by me and represents my own critical thinking, analysis, and synthesis of sources. I take full responsibility for the final content of this report.

8. References

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