

Weekly Student Work Report

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Grade/Master: Computer Engineering - Computation

Week: March 3 - March 9

(e.g., March 1 - March 7, 2025)

(create as many space as needed and convert to PDF before submission)

1. Summary of Activities:

[Provide a brief summary of the activities engaged in during the week]

Implemented the first version of the algorithm, as discussed.

Focused on completing the PEC assignment instead of working on documentation.

Developed two versions of data generation:

- First version: Used ChatGPT to generate a dataframe (repetitive output).
- Second version: Used the Faker library to generate fake data (preferred version).

Implemented a missing value generator with MCAR (Missing Completely at Random).

Started exploring the implementation of MAR (Missing at Random) and MNAR (Missing Not at Random).

Began working on an interface.

2. Strengths and Achievements:

[Highlight strengths, notable achievements, or improvements observed during the week]

Successfully implemented the first version of the algorithm.

Developed a better solution for data generation using Faker, improving randomness and variety.

Completed the PEC assignment.

Initiated the design of an interface with functional buttons and displays.

Made progress on missing value generation (MCAR implemented).

3. Issues:

[Identify specific issues that have been solved and those that need additional focus on your side.]

Include suggestions for doing so]

Behind on documentation due to PEC assignment.

Data generated by ChatGPT was repetitive.

Missing value generator is only partially implemented (MCAR done, but MAR/MNAR still undecided).

Statistical implementation (I haven't managed to make an algorithm that respects the distribution)

4. Ongoing/Next Activities:

[Provide a brief summary of the activities you are planning to engage in during next week]

Continue working on implementing MAR and MNAR for the missing value generator.

Focus on completing the documentation for the project.

Figure out

Make test cases.

Heatmap

- **Do you need me to give you feedback? (YES / NO)**

If YES, on what?

Yes, about my approaches on data generation and ideas on how to deal with distribution. What % is acceptable for modification?

Additionally if you think that there are other I should focus in, let me know.

- **Do you need a short meeting (around 20-30') next week?**
- **Do you need a long meeting (around 30-45') next week?**

Documents attached to the email: