Academic Presentation with AI and Marp
see how future looks like

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Using math in the presentation

- The normal distribution is a continuous probability distribution that is symmetrical on both sides of the mean, so the right side of the center is a mirror image of the left side.

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{1}{2}(\frac{x-\mu}{\sigma})^2}$$

- Inline math: $f(x) = ax + b$

Using math in the presentation

- A matrix is a rectangular array of numbers or other mathematical objects for which operations such as addition and multiplication are defined.

$$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix} \times \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

Using tables in the presentation

col_1	col_2	col_3	col_4	col_5
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25

Using images in the presentation

- image in the center

- another one left aligned with R logo

Using code in the presentation

- Python code

```python
import numpy as np
import matplotlib.pyplot as plt

print('Hello World!')
```

- R code

```r
library(ggplot2)
library(data.table)

print('Hello World!')
```

Convert to PDF or PPT

- Convert to PDF

```
docker \
   run --rm -v $PWD:/home/marp/app/ -e LANG=$LANG \
   marpteam/marp-cli \
   practice_03/p03_slides.md --pdf \
   --theme ./themes/beam.css
```

- Convert to PPT

```
docker \
   run --rm -v $PWD:/home/marp/app/ -e LANG=$LANG \
   marpteam/marp-cli practice_03/p03_slides.md --pptx \
   --theme ./themes/beam.css
```

References

1. Marp
2. Marp Theme
3. Marp CLI
4. Marp Docker
5. Marp Instruction
6. Latex style with Vscode
7. Latex css
8. Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. Journal of machine Learning research, 3(Jan), 993-1022.