Your Presentation Title 标题

Optional Subtitle 副标题

Your Name

Your University/Institution 单位/学院

2025 年 6 月 5 日

Outline

1. Section Title 1
2. Section Title 2

1 Section Title 1

2 Section Title 2

Frame Title 1.1

Block Title:

- Placeholder concept 1111
- Placeholder concept 2
- Placeholder concept 3
- Placeholder concept 4
- Placeholder concept 5
- Placeholder concept 6

Frame Title 1.2

Alert Block Title:

Placeholder challenge summary.

- Placeholder point A
- Placeholder point B
- Placeholder point C

图 1: Placeholder Figure Caption 1

Example Block Title

Placeholder example text.

Frame Title 1.3

Alert Block Title:

Placeholder Topic A:

- Placeholder point 1
- Placeholder point 2
- Placeholder point 3

Placeholder Topic B:

- Placeholder point 1
- Placeholder point 2
- Placeholder point 3

Frame Title 1.4

Placeholder text before list: Placeholder text, main contributions are:

- Placeholder contribution 1
- Placeholder contribution 2
- Placeholder contribution 3
- Placeholder contribution 4
- Placeholder contribution 5

1 Section Title 1

2 Section Title 2
Subsection Title 2.1
Subsection Title 2.2

1 Section Title 1

2 Section Title 2
Subsection Title 2.1
Subsection Title 2.2

Frame Title 2.1

Block Title

$$\min_{\theta} F(\theta) = \sum_{s \in S} \frac{n_s}{n} F_s(\theta)$$
$$= \sum_{s \in S} \frac{n_s}{n} \frac{1}{n_s} \sum_{i \in D_s} \ell(\theta; x_i)$$

Placeholder explanation text.

表 1: Placeholder Table Caption

符号	含义
S	Placeholder meaning 1
U	Placeholder meaning 2
$n_{s,u}$	Placeholder meaning 3
C	Placeholder meaning 4
σ	Placeholder meaning 5
$\mathcal{N}(0, \sigma^2)$	Placeholder meaning 6

Alert Block Title

Placeholder challenge summary.

Frame Title 2.2

定义 (Definition Title 1)

Placeholder definition text 1.

- **Placeholder:** Item 1
- **Placeholder:** Item 2
- **Placeholder:** Item 3

定义 (Definition Title 2)

Placeholder definition text 2.

- Placeholder item A
- Placeholder item B
- Placeholder item C

Frame Title 2.3

定义 (Definition Title)

Placeholder definition text.

- **Placeholder:** Item 1
- **Placeholder:** Item 2
- **Placeholder:** Item 3

表 2: Placeholder Comparison Table Caption

特性	记录级	用户级
保护对象	Placeholder 1A	Placeholder 1B
敏感度	Placeholder 2A	Placeholder 2B
噪声量	Placeholder 3A	Placeholder 3B
实现难度	Placeholder 4A	Placeholder 4B
隐私保障	Placeholder 5A	Placeholder 5B
跨孤岛适用性	Placeholder 6A	Placeholder 6B

Frame Title 2.4 (Algorithm 1)

算法 1 Placeholder Algorithm 1

1: **for** each silo $s \in S$ **do**
2: Perform local training
3: Compute model update Δ_s^t
4: Apply clipping to Δ_s^t
5: Add Gaussian noise $\mathcal{N}(0, \sigma^2 C^2 |S|)$ ▷ Placeholder comment
6: **end for**
7: Aggregate noisy updates

Limitations:

- Limitation A
- Limitation B
- Limitation C

Summary of limitations.

Frame Title 2.5 (Algorithm 2)

算法 2 Placeholder Algorithm 2

for each user $u \in U$ **do**
    Limit records for user u to k ▷ Placeholder comment
end for
for each silo $s \in S$ **do**
    Perform local training
    Compute model update Δ_s^t
    Use DP-SGD for local training ▷ Placeholder comment
    $\Delta_s^t \leftarrow$ DP-SGD(...)
end for
Aggregate updates

Limitations:

- Limitation A
- Limitation B
- Limitation C

Summary of limitations.

1 Section Title 1

2 Section Title 2
Subsection Title 2.1
Subsection Title 2.2

Frame Title 2.7 (Algorithm A vs B)

算法 3 Placeholder Algorithm A

for each silo $s \in S$ **do**
  for each user $u \in U_s$ **do**
    Train using user u's data
    for each batch $B \in \mathcal{B}_u$ **do**
      Compute batch gradient
      Clip gradient
      Weight gradient
      Update local model
    end for
    Compute final model update
  end for
  Aggregate user updates
  Add noise
end for
Aggregate silo updates

算法 4 Placeholder Algorithm B

for each silo $s \in S$ **do**
  for each user $u \in U_s$ **do**
    Train using user u's data
    Compute full model update $\Delta_{s,u}^{t}$
    Clip update
    Weight update
  end for
  Aggregate user updates
  Add noise
end for
Aggregate silo updates

关键差异:

- 梯度计算:
  - AVG: Placeholder detail 1[1]
  - SGD: Placeholder detail 2
- 内存使用:
  - AVG: Placeholder detail 3[3]
  - SGD: Placeholder detail 4

谢谢!! [2]
请各位批评指正!

参考文献 I

[1] A. Author and B. Coauthor.
Title of the article.
Journal Name, 1(1):1–10, 2020.

[2] C. ConfAuthor and D. Another.
Title of the conference paper.
In *Proceedings of the Conference Name*, pages 100–105.
Conference Organization, 2021.

[3] unknown.
Thu beamer theme.
In *None*, pages 1–10, 2015.