















????

-  _____
-  _____
-  _____
-  _____
-  _____
-  _____ S _____
-  _____
-  _____
-  _____
-  _____
-  _____
-  _____
- LLM _____

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1.

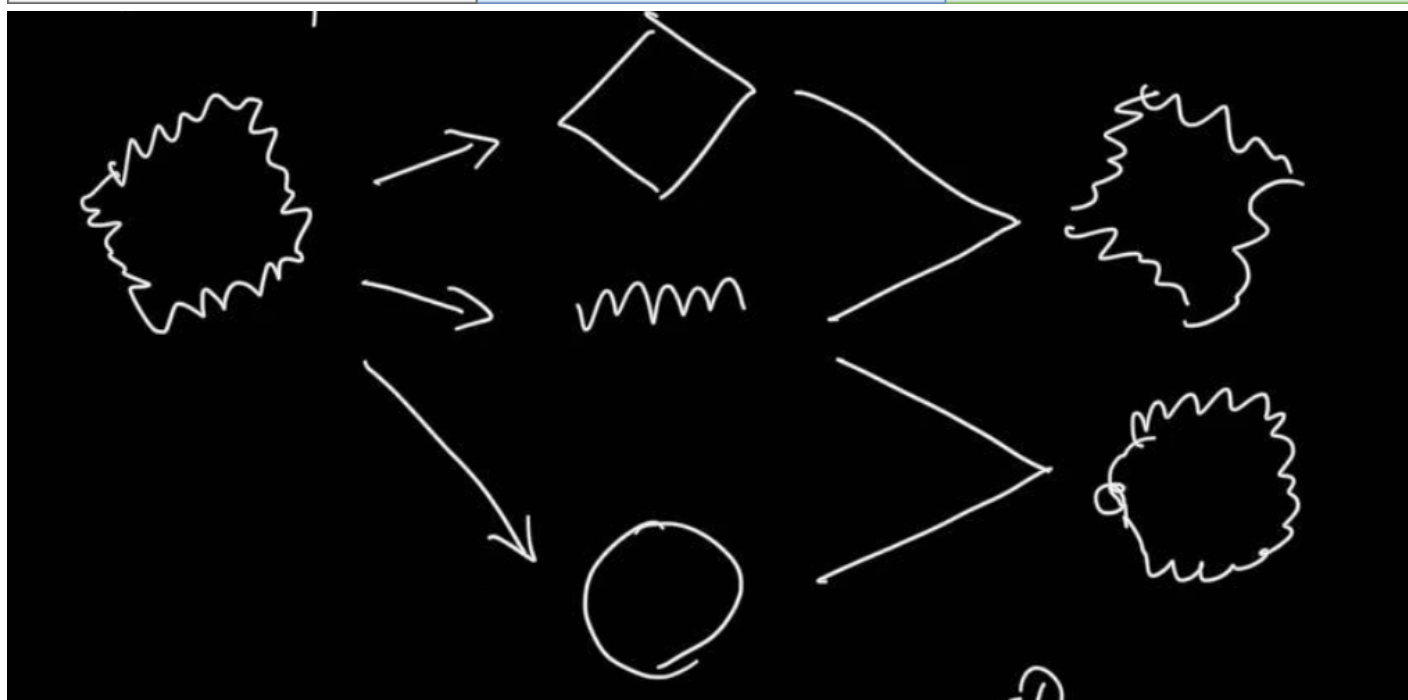
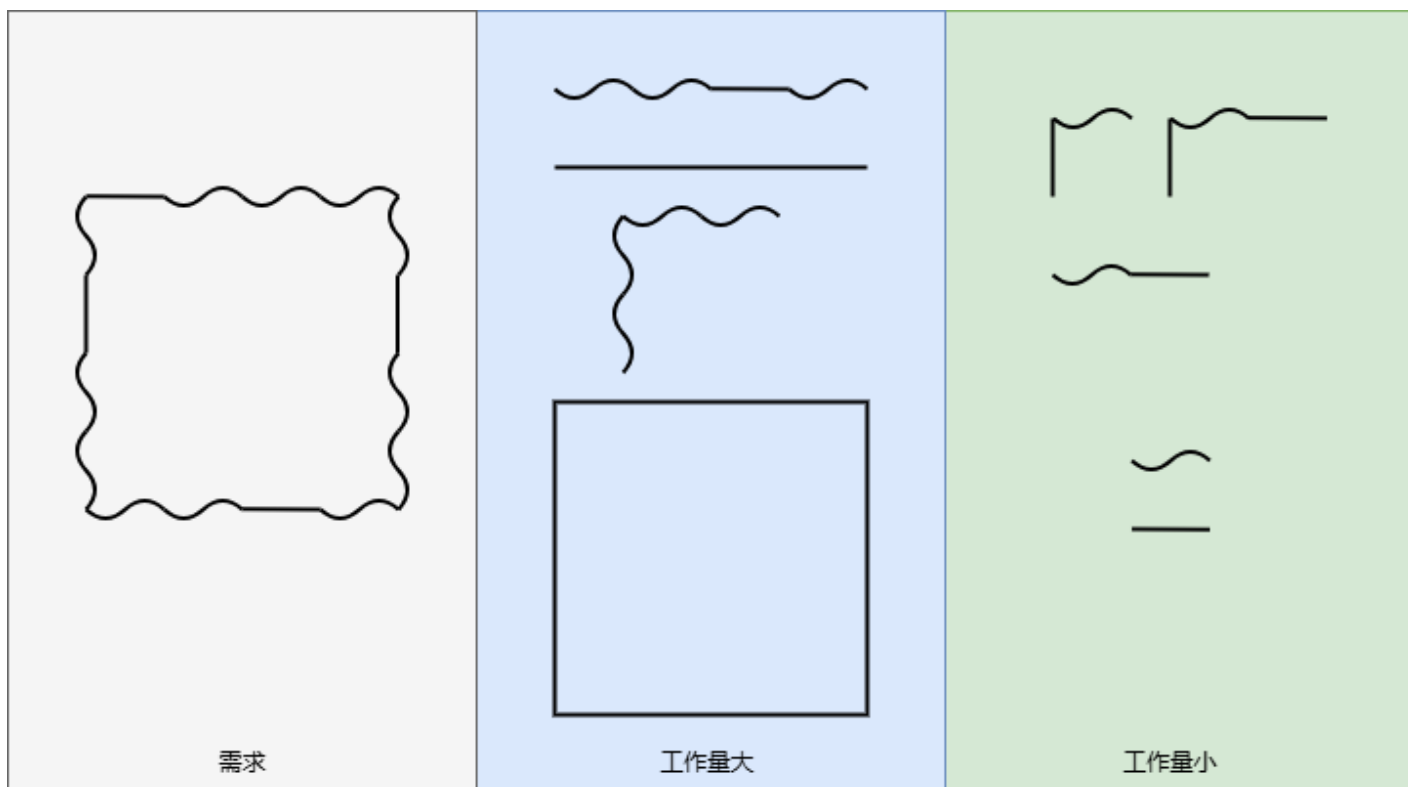
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????????????

1.

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[illegible]

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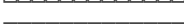


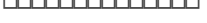








[illegible]

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- ☐ 
- ☐ 
- ☐  "  "  "War and....." 
- ☐
- ☐ 
- ☐  $2 + 2 = ?$
- ☐ 
- ☐ 
- ☐   _____ 
- ☐ 
- ☐  "  " 

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[illegible]

- 
- 
- 
- 
- 
- 
- 
-  A 
- 
- 
- 
- 
-   
-  17 x 24  

[illegible]

- 

1/200

-

- -
 -
- /

A

B

A

“”

B

“”

10%

90%

[illegible]

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[illegible][illegible]

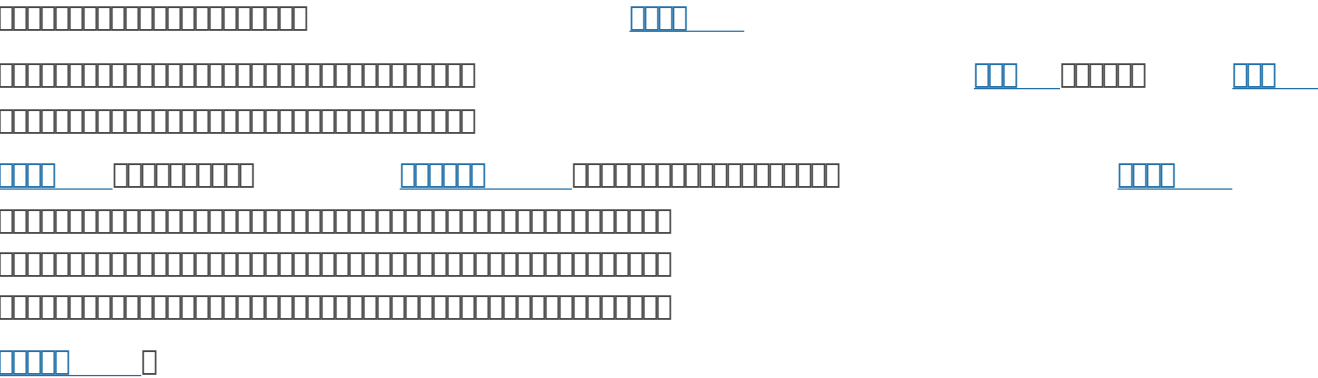
1

						"					"					"				
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[illegible]

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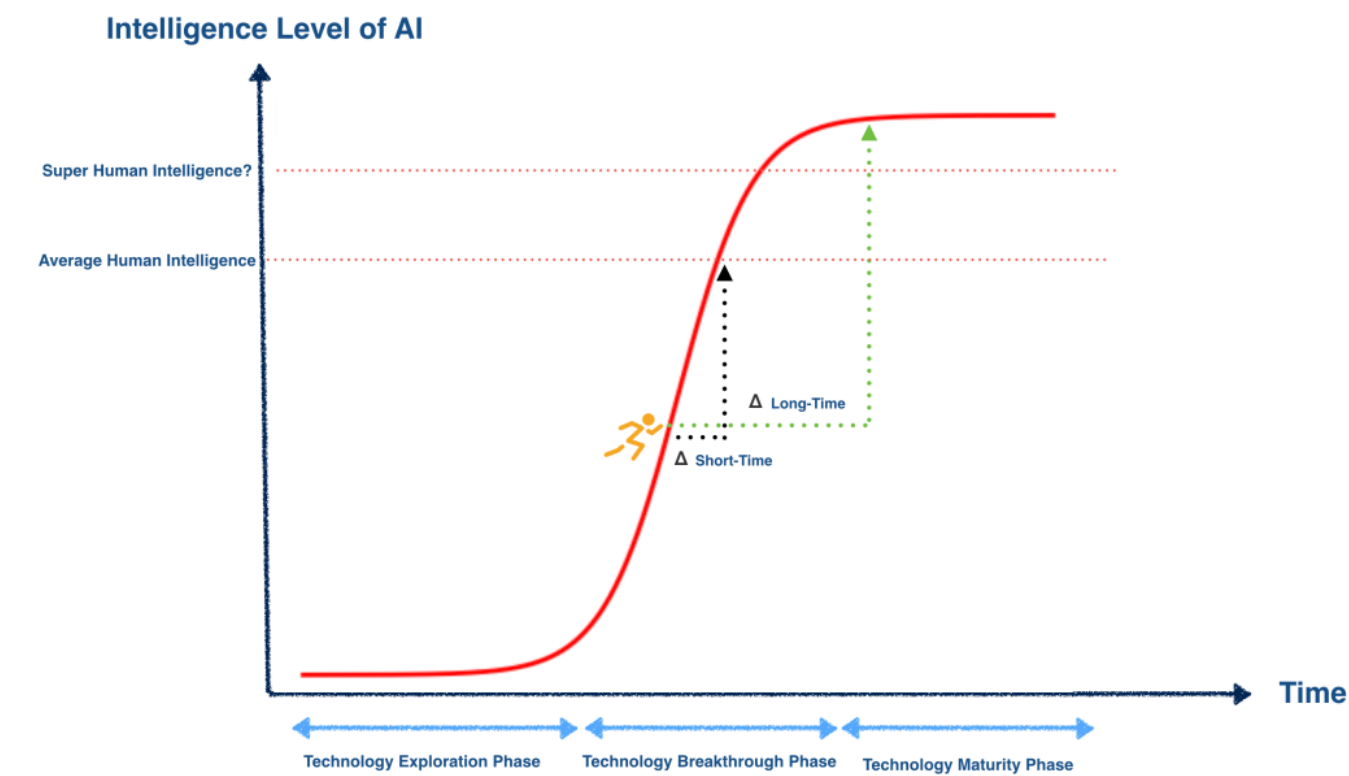


[15]

-  _____
-  _____  _____
-  _____ 
-  _____  _____  _____   _____
-  _____  _____  _____  _____  _____ 

-
1. [100 tokens]
1. [10 tokens] [10 tokens] [10 tokens] [10 tokens] [10 tokens]
2. [20 tokens] [20 tokens]
3. [40 tokens]
4. AI [10 tokens] transformer [10 tokens]

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Scaling Law

Sigmoid

AI

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1.
2.


 AI
3.
4.

 NP
5.





??

1.  "  " , "  "
2.  "  "  "  " 
3. 

??

1. 
2. “ ”
3. “ ” ”
4. 
 1. 
 2. 
 3. 
2. 
3. AI 

??

1. 
1. 
2. 
3. 

????/???/API

- 1. []
- 2. []
 - 1. []
- 3. []

LLM???????

- 1. [] LLM[]
 - 1. [] token[]
 - 2. []
 - 3. token[]
- 2. tensor[]
- 3. dot/gemm[]
- 4. [] attention
- 5. []
 - 1. [] “ [] ” []
 - 2. []
 - 3. [] “ [] ” []
 - 4. [] -> [] -> [] -> []
 - 5. [] 3 []
- 6. []
 - 1. NetList -> [] -> [] -> PR []
 - 2. sequence -> [] -> sequence

??

[]

[] “ [] ”

[] AI []

[] AI []

[] AI

[] context []

context [] AI

[]

[] “ [] ” —— []

[] AI []

--	--	--	--	--	--	--

?????

- 1.
1. / /
2.
 - 1.
 - 2.
3. -
4. / /
5. / /
6. isa
- 2.
- 3.

```
class A:
    pass

class B:
    pass

class C(A):
    C()
    B b
    A ToA(B):
        return A
```

Backup

static

[illegible]

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- [illegible]

$$\boxed{} - \boxed{}$$




1.

1. python config ast python , toml

2. python model + model




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1. 
2. 
 1. 

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????????????

1. 
2. 
3. 

??????????










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??????????

1. 
1. 
2. 
2. 
1. 
2. 
3. 
3. 
1. 

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1. 
2.

?????

1.
1.

2.

3.
2.
1.

2.

/

“ ”

“ ” ”

??????????

1.

2. “” “”

3.

4. “” “”
 “”

5.

6. “”
 “”

LLM????

Diagram illustrating the input and output structure of the LLM. The input is a 2x2 grid of boxes, and the output is a 1x16 grid of boxes.

LLM

--	--	--	--	--	--

1. $\square\square$
2. $\square\square / \square\square\square$
3. $\square\square\square\square / \square\square\square\square\square\square$

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Diagram illustrating a sequence of 20 boxes, with the first two labeled "LLM".

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[illegible]