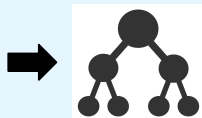


Concept-to-Code

Sources

{pdf, HTML,
Json}
{Math, Algo,
Phy, Chem,
..}



Concepts

Instruction



Test- Cases

Code Verification



(Code, Tests)



(Code, Tests)

....

(Code, Tests)

....

(Code, Tests)

Code1

Code2

Code3

Test- Case1

Test- Case2

Test- Case3

CoT Generation

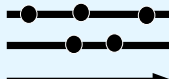
Filtered
(code, test)
Exec-Traces

```
numbers = [10.0]
call 3 def calculate_average(numbers):
line 4     if not numbers:
line 7         total = 0.0
total = 0.0
line 8     for number in numbers:
line 9         total += number
number = 10.0
line 10     return total
```

LLM



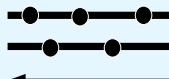
+



Forward



+



Backward