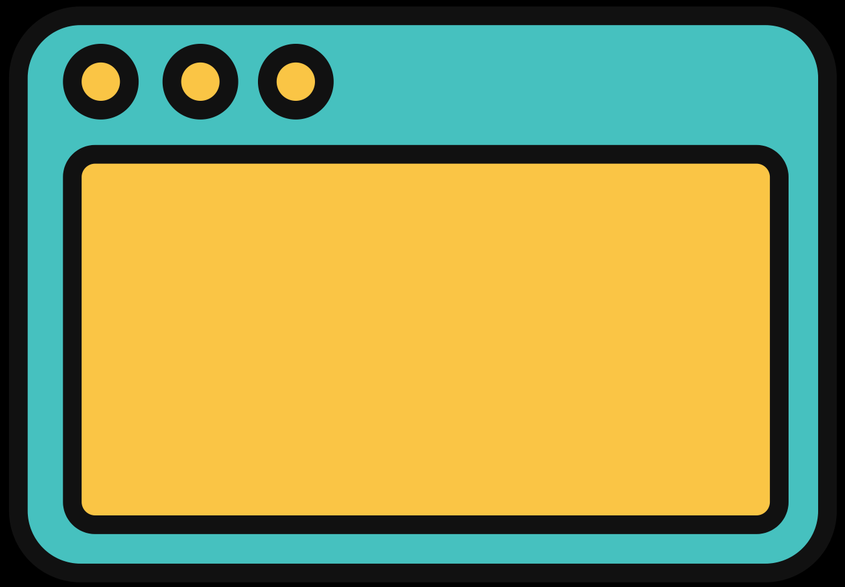
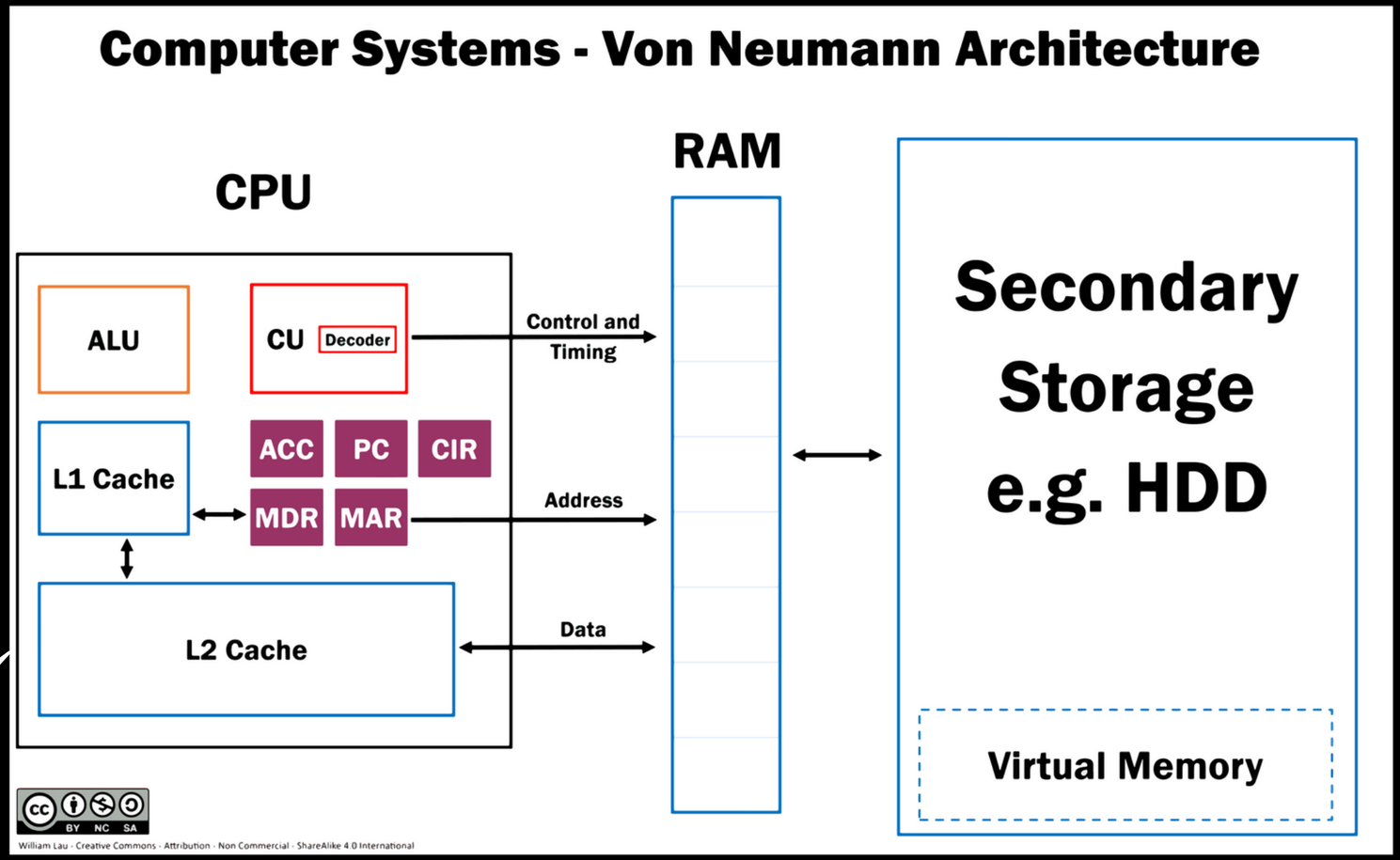
즐거운 코딩 경험

〈CODINGMAX/〉



# PRAGRAM = ? + ?

# PRAGRAM = DATA + ALGORITHM

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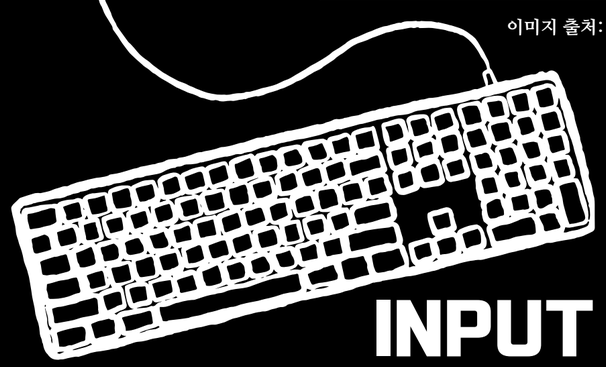


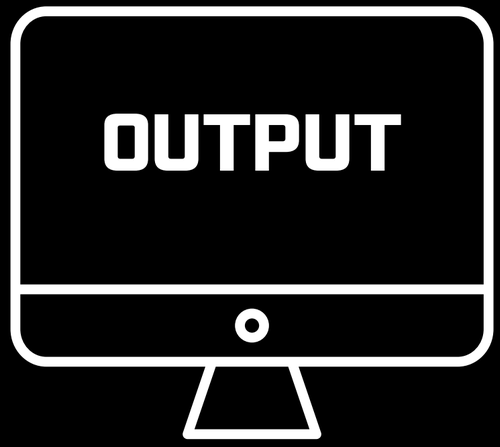

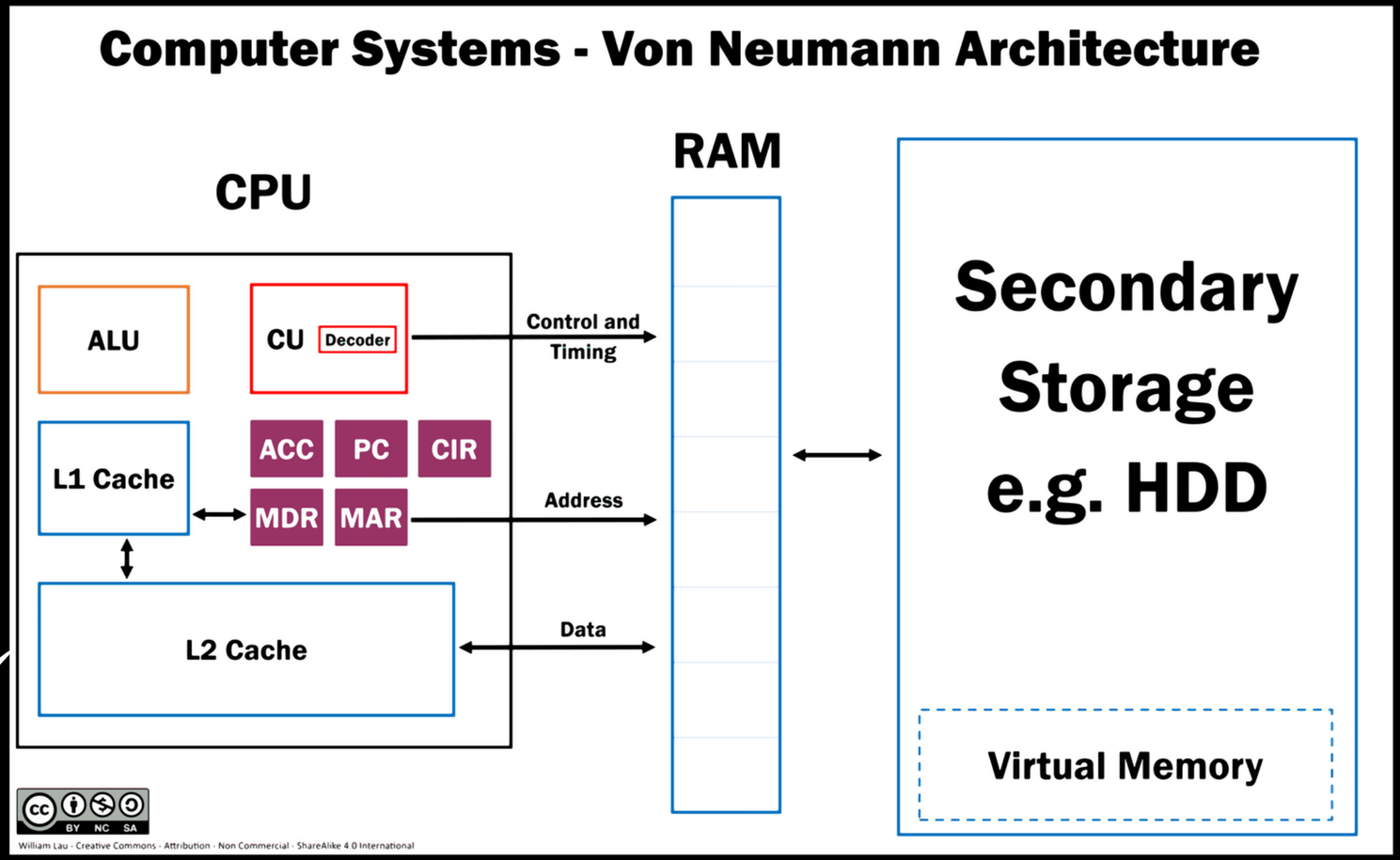


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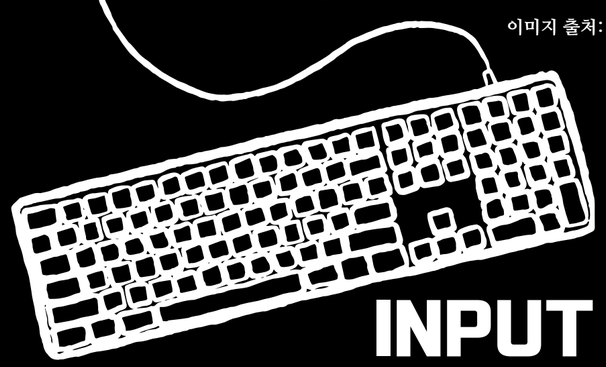


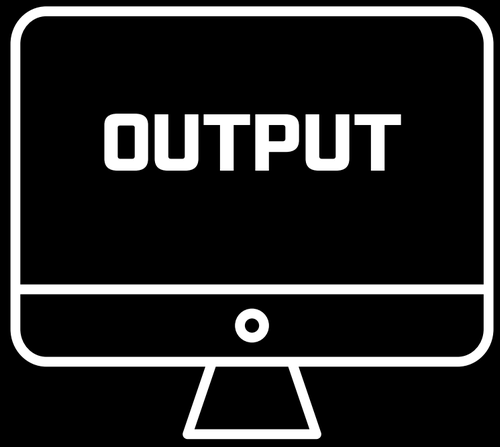

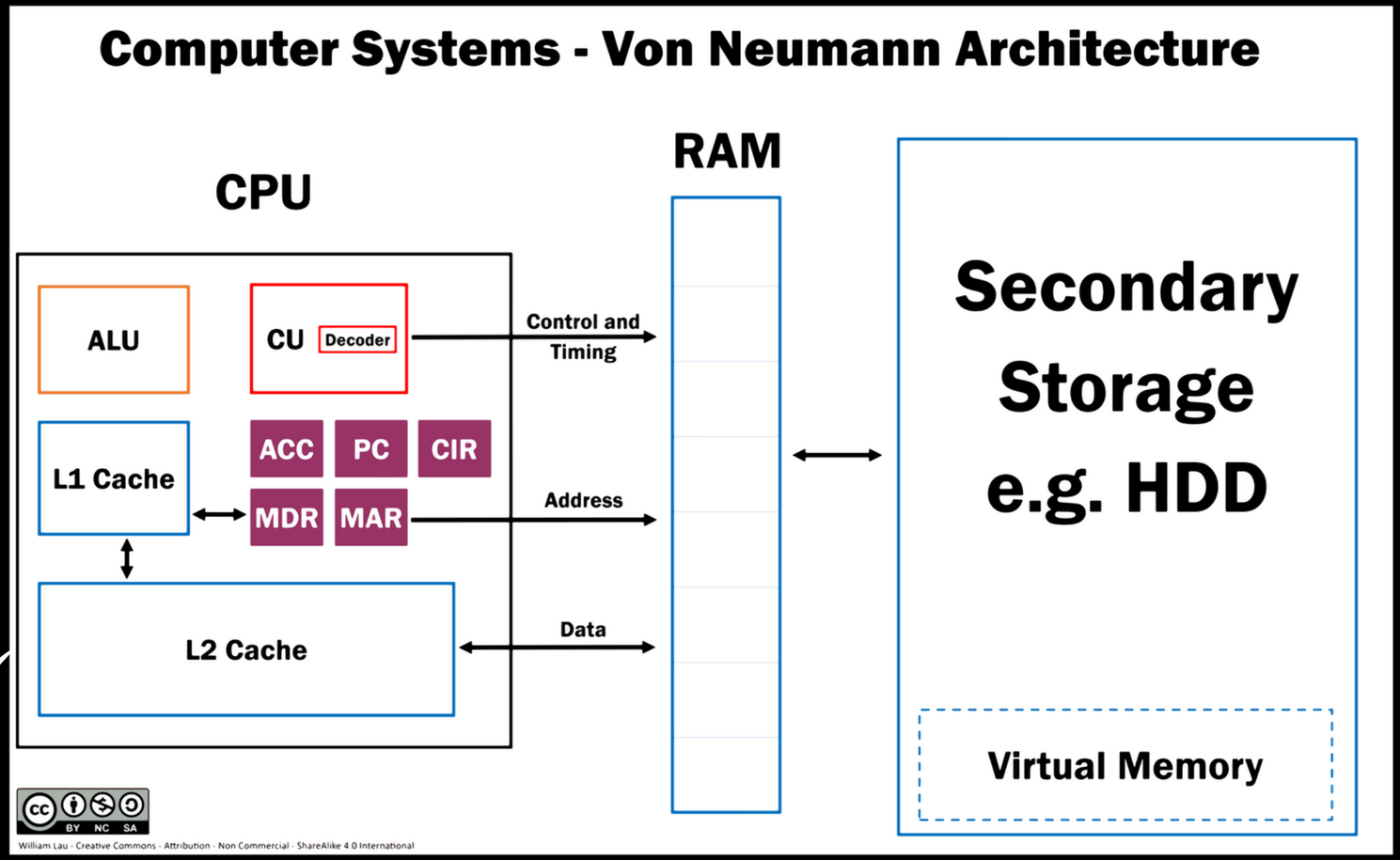


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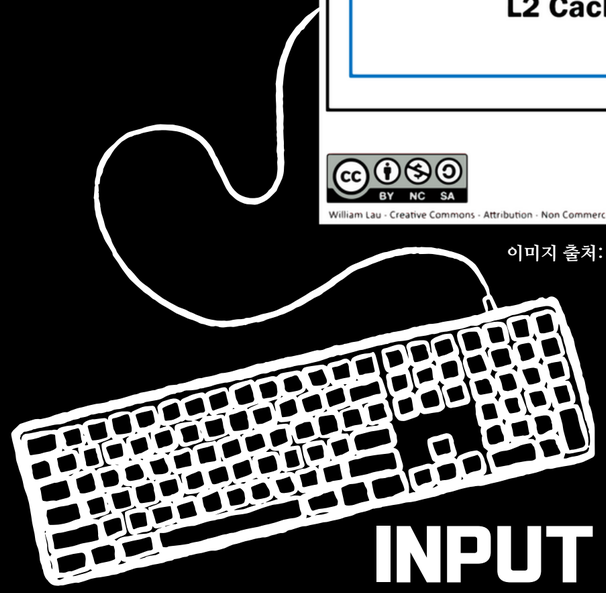


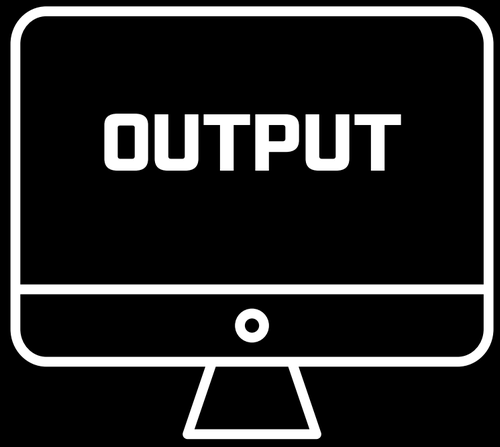

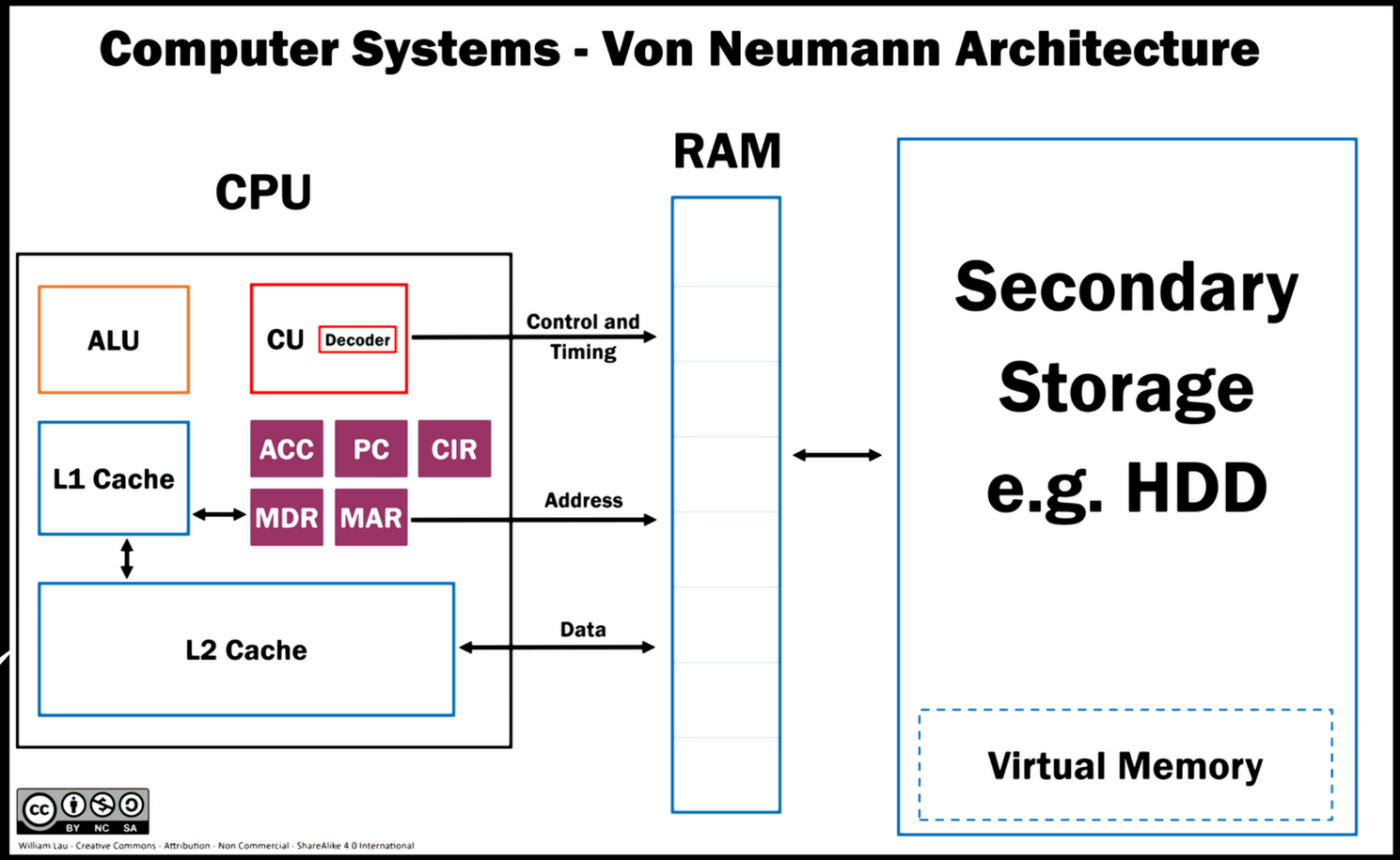


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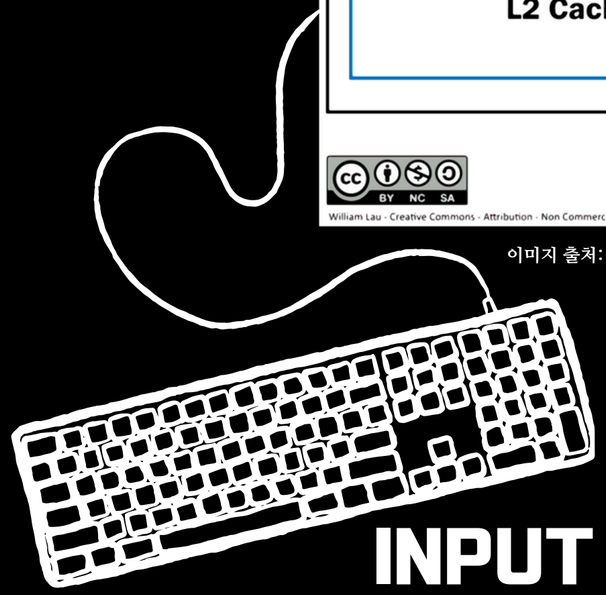


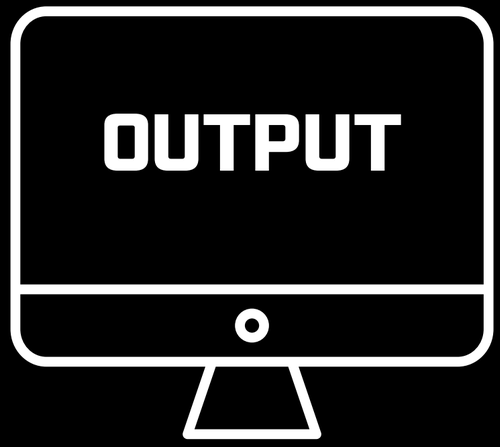

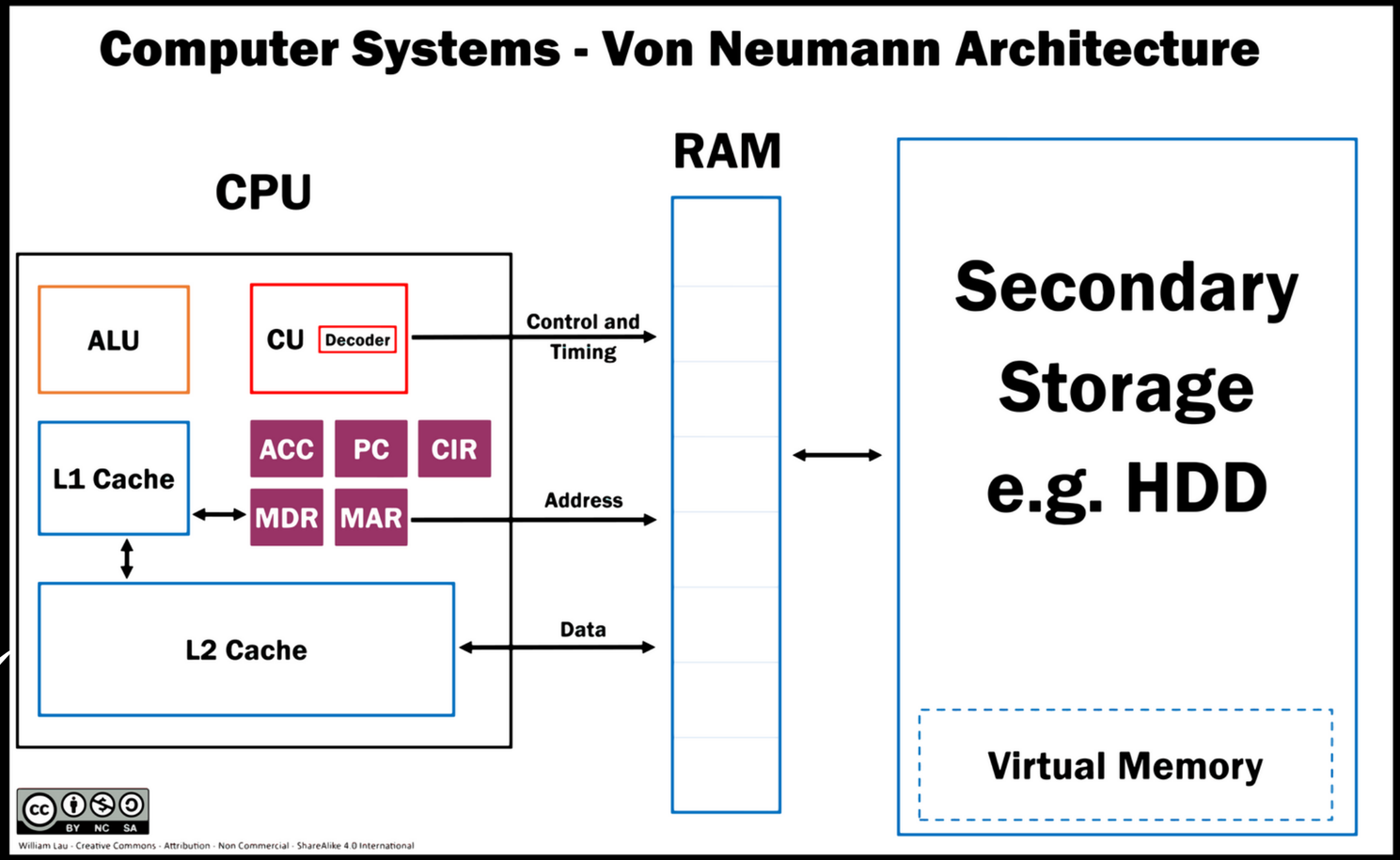


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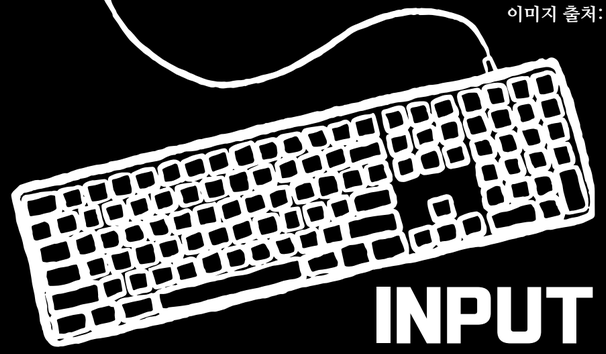


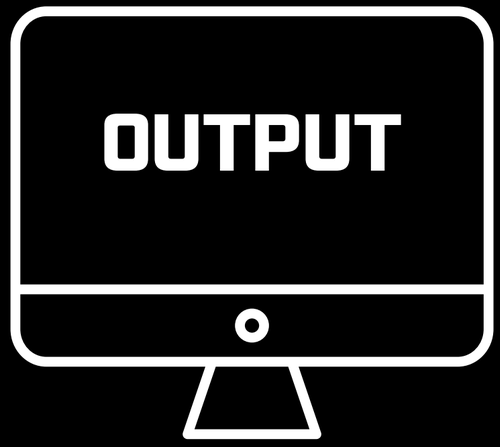

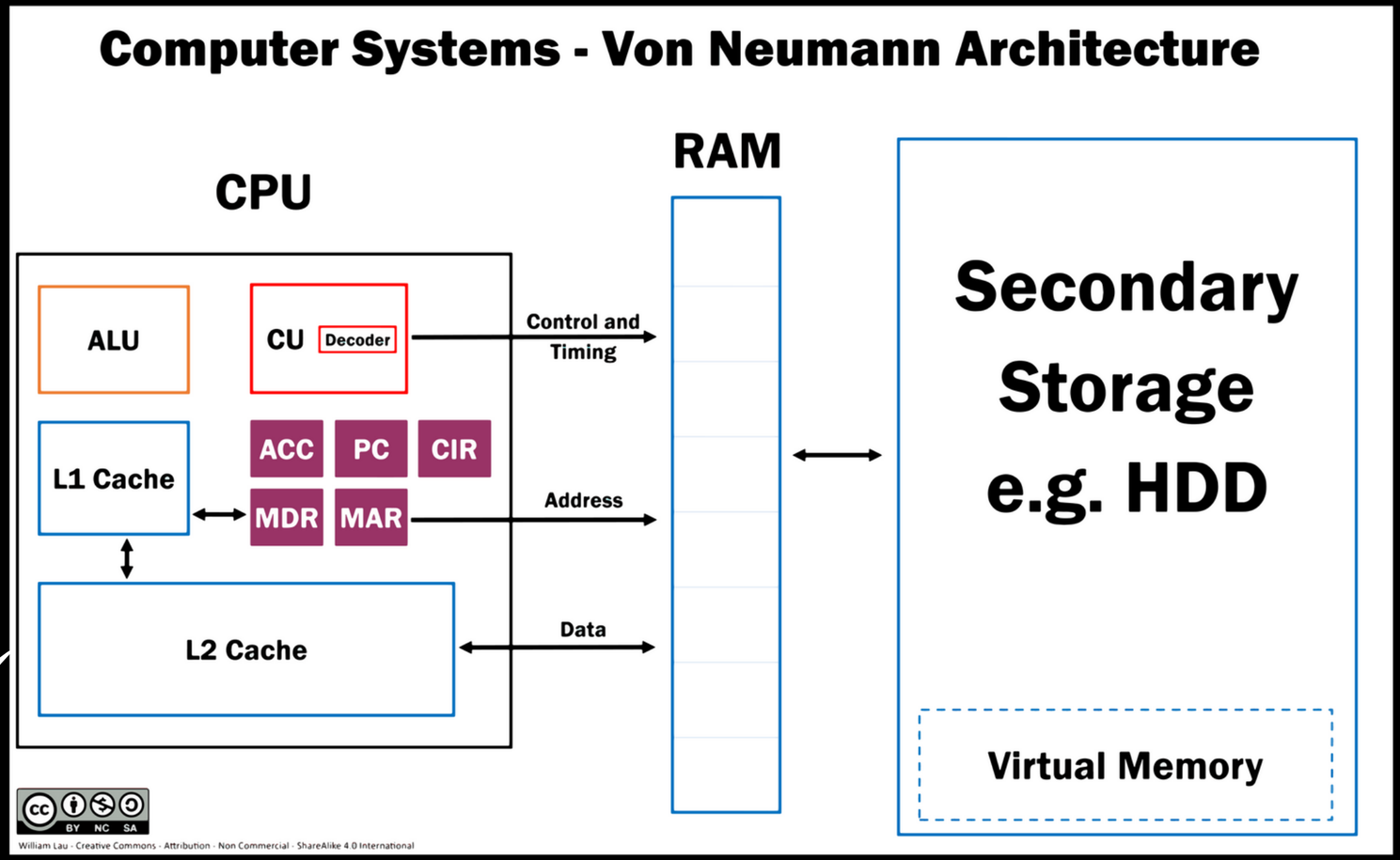


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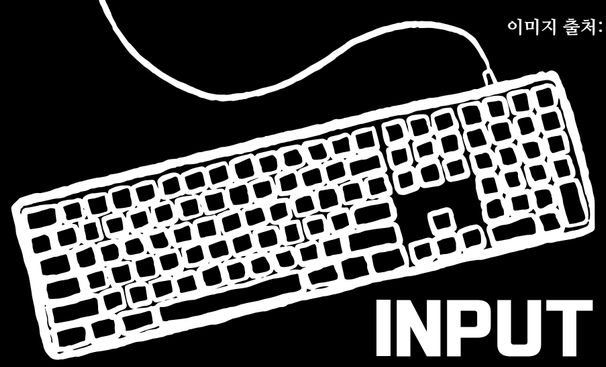


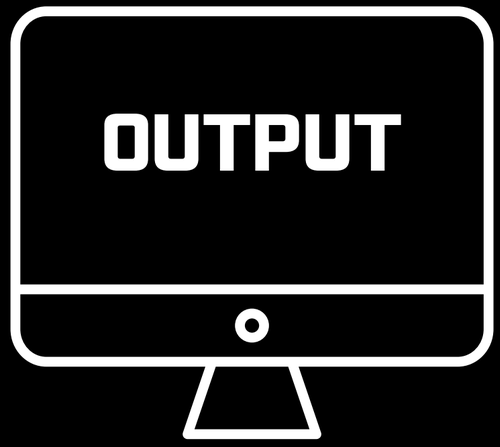

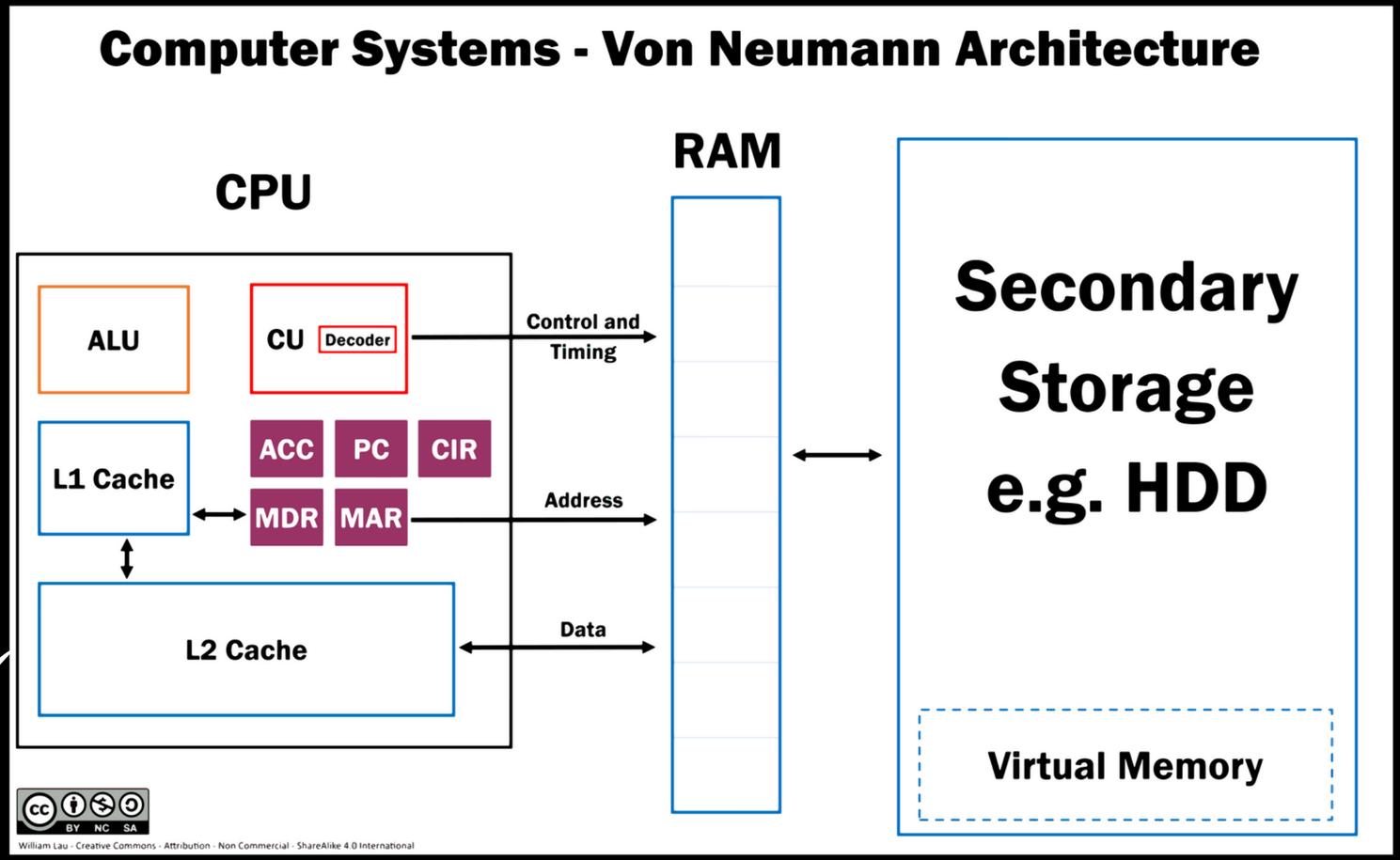


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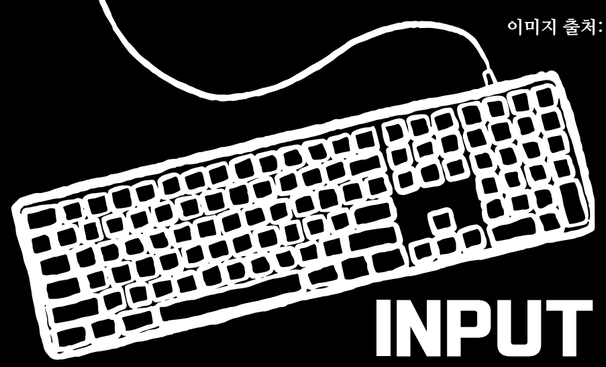


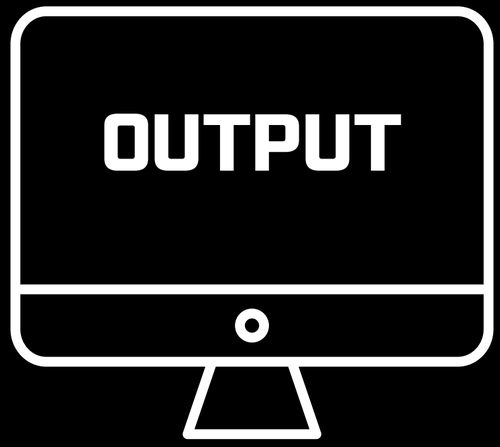

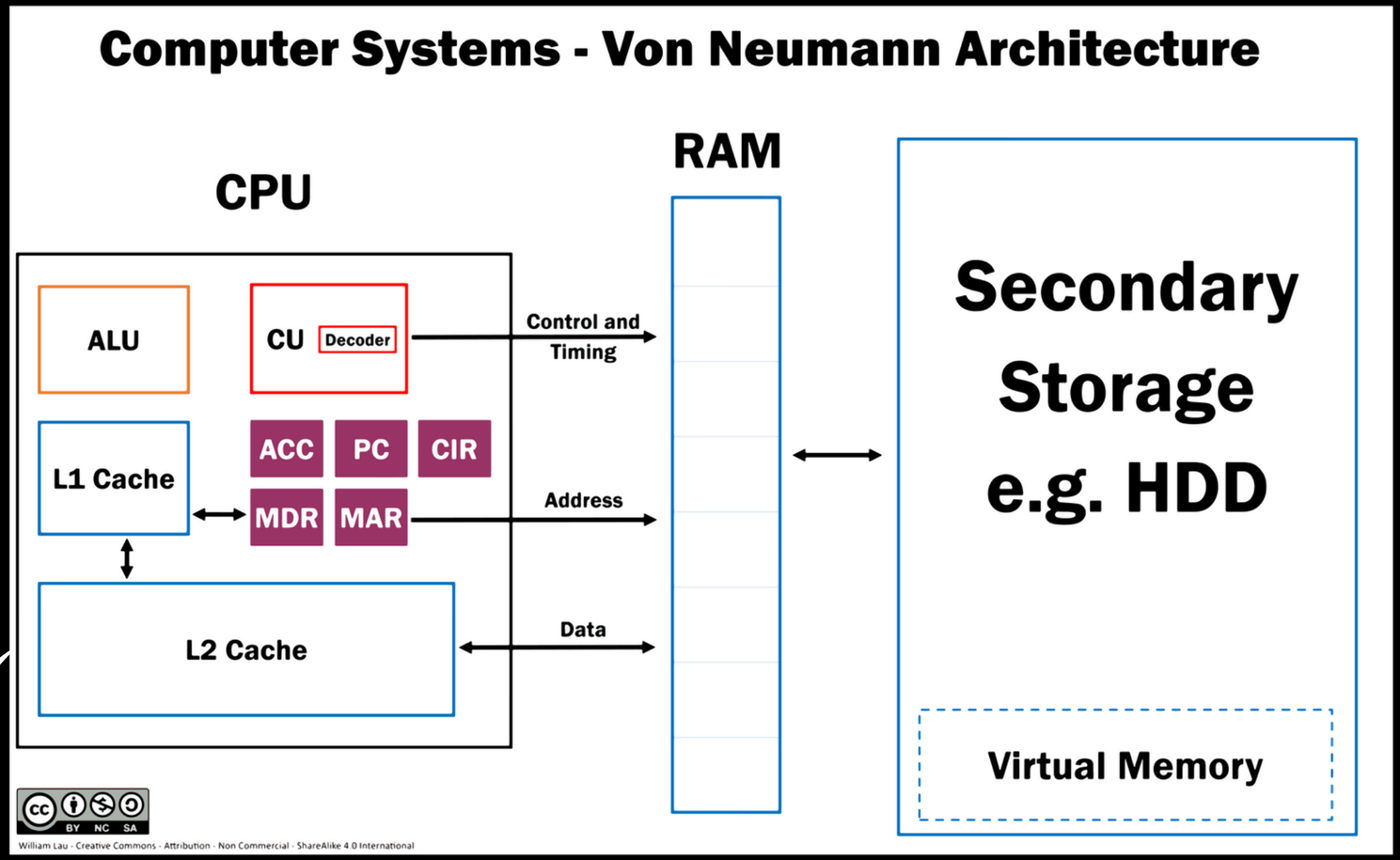


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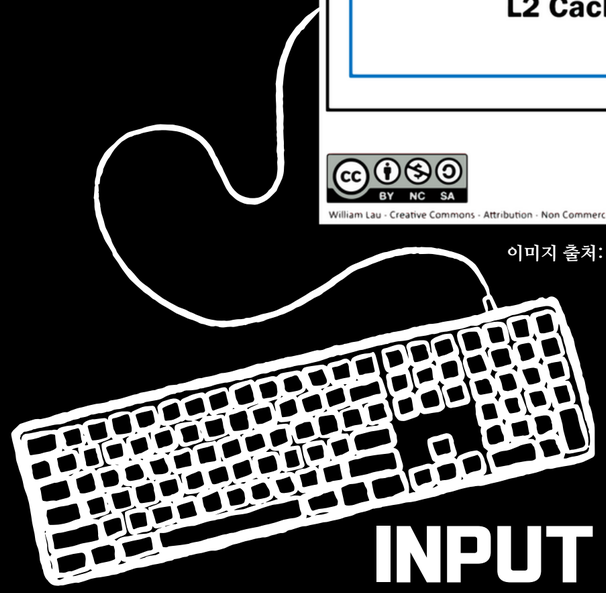


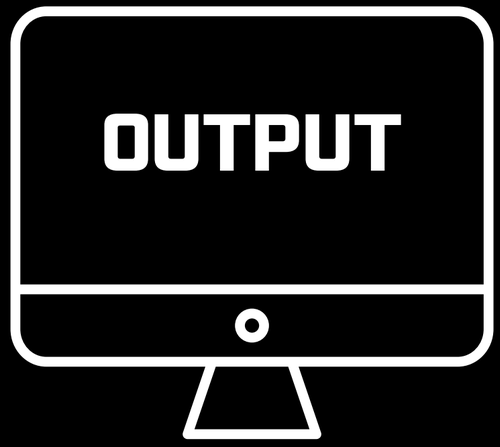

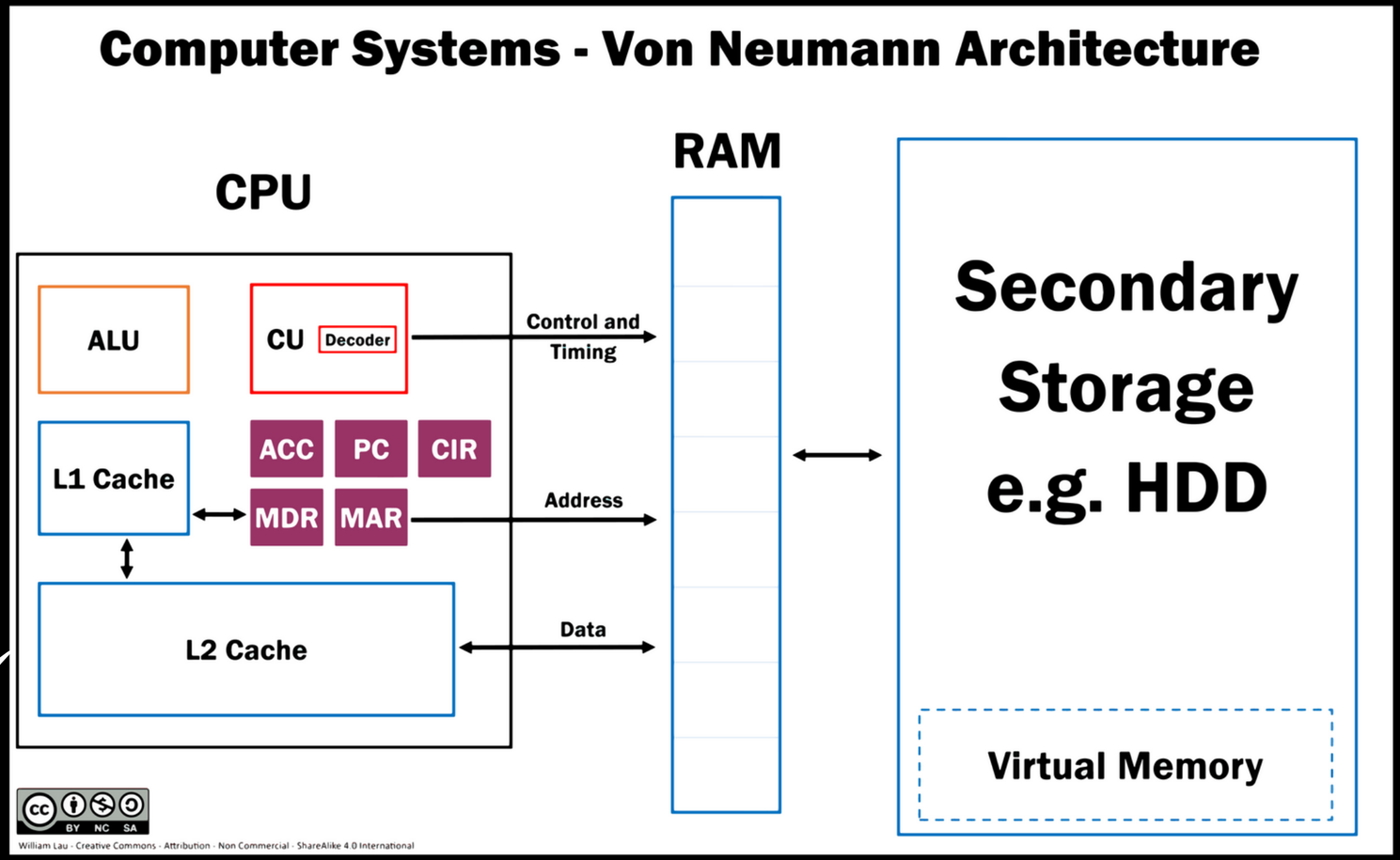


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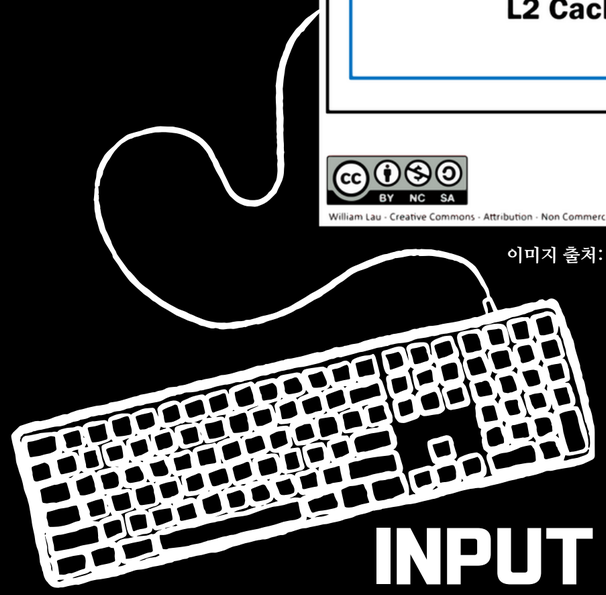


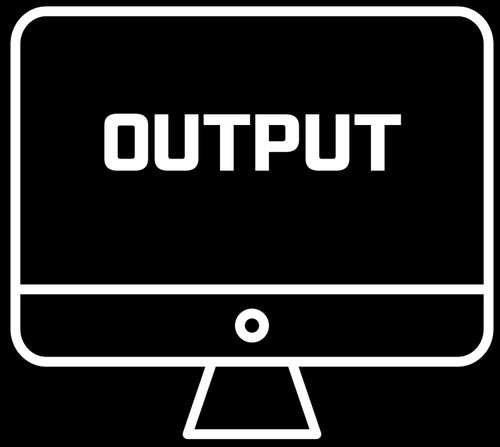

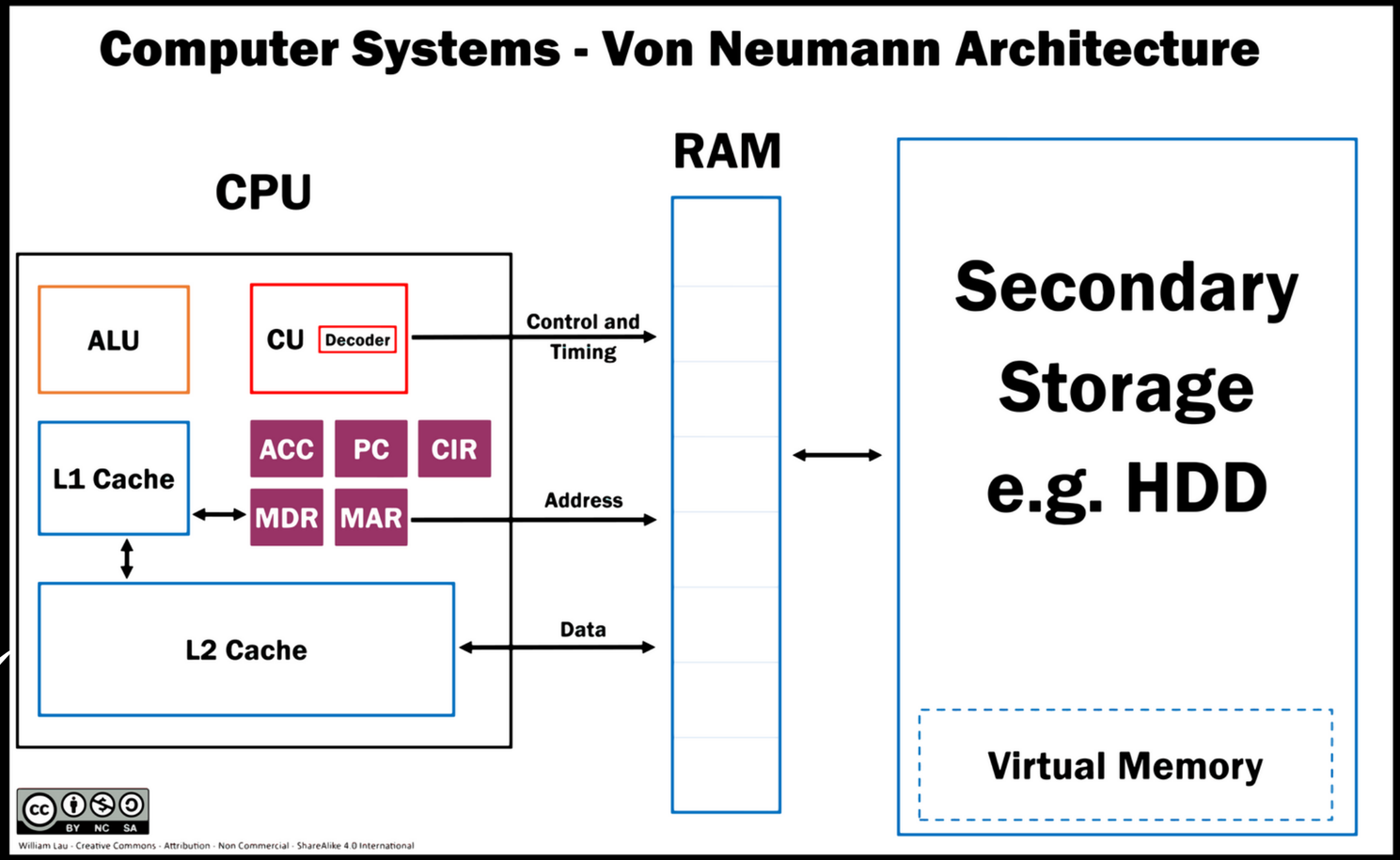


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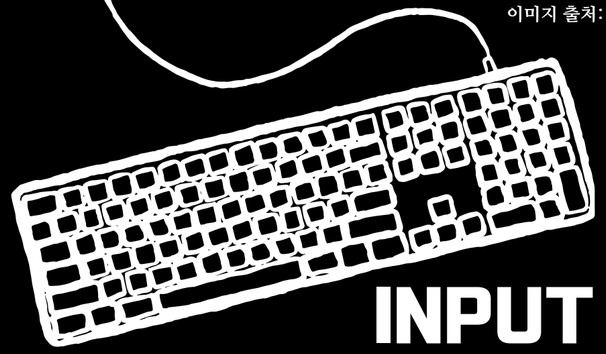


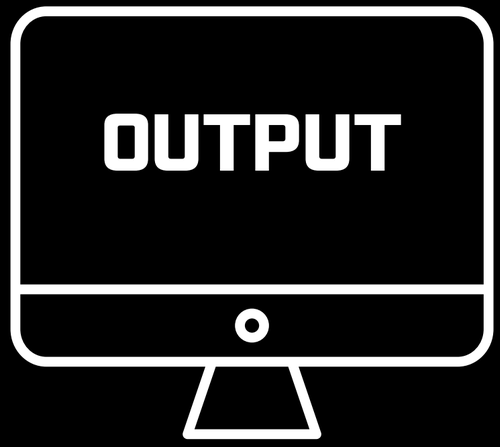

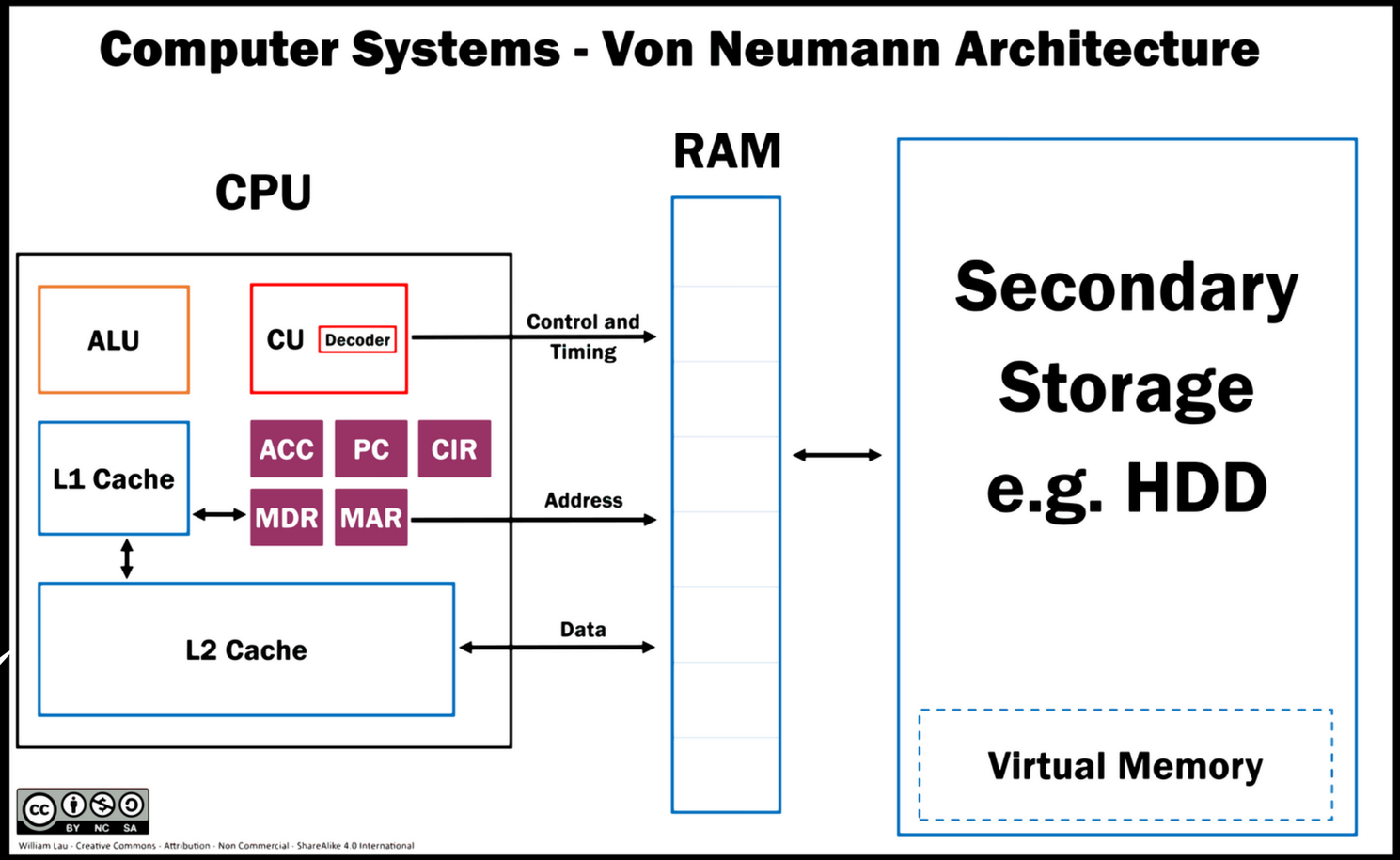


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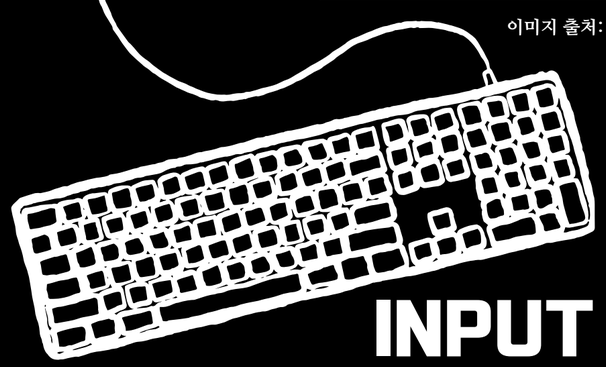


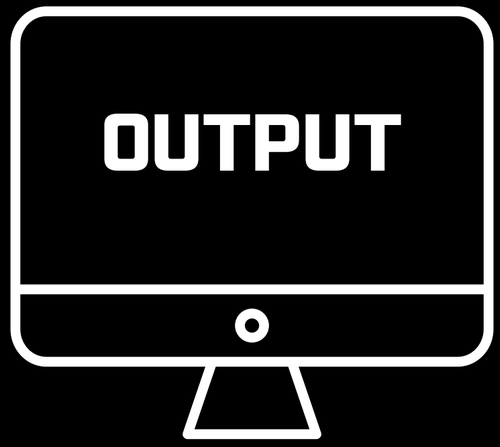

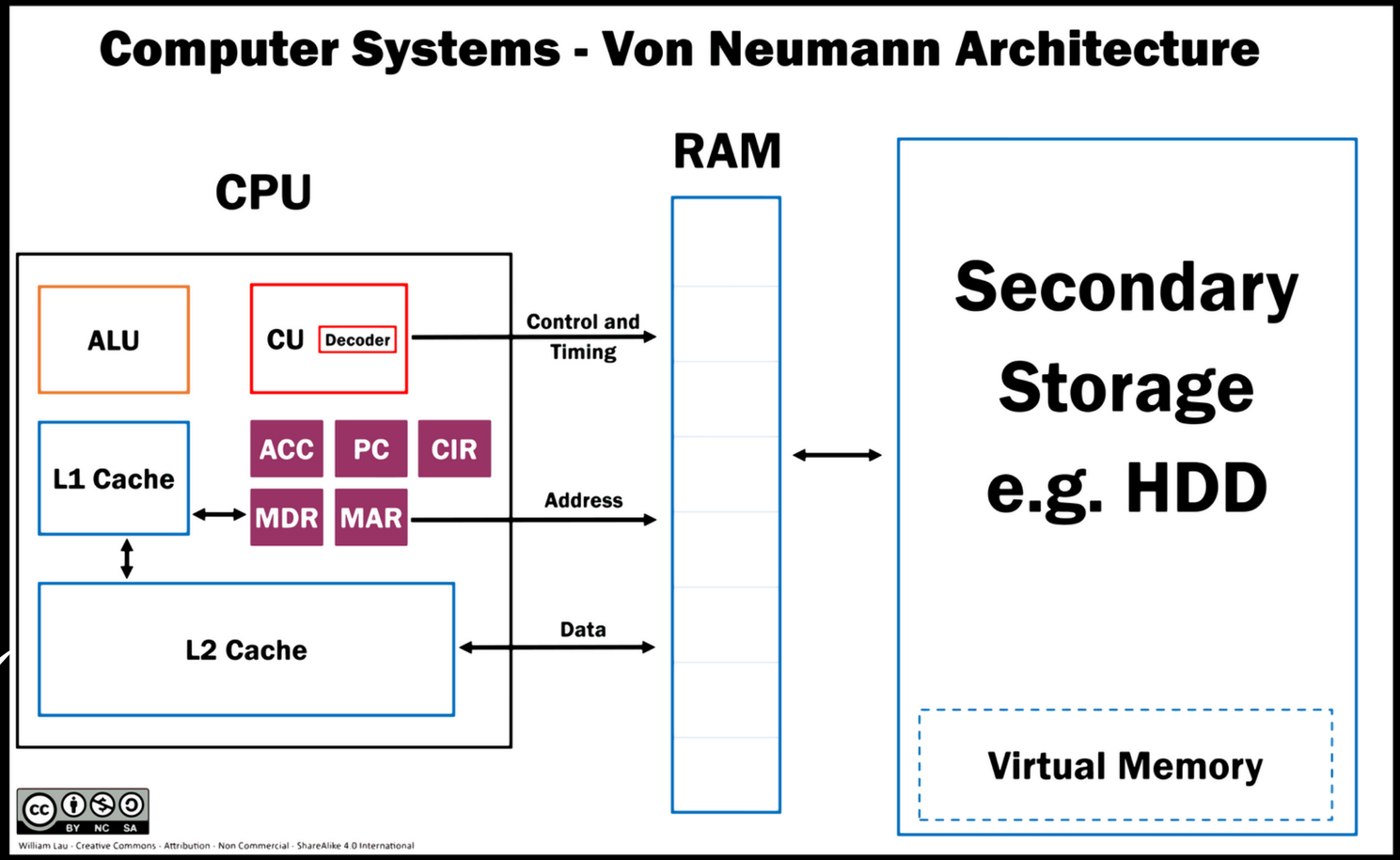


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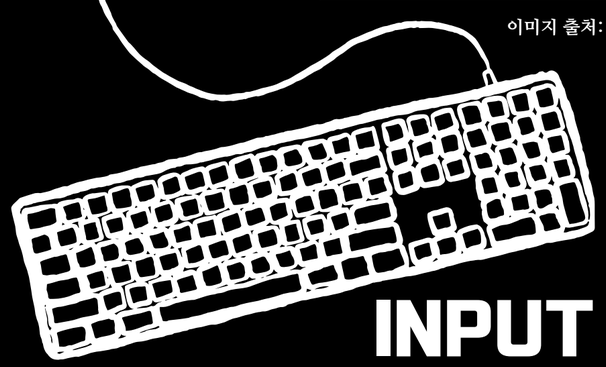
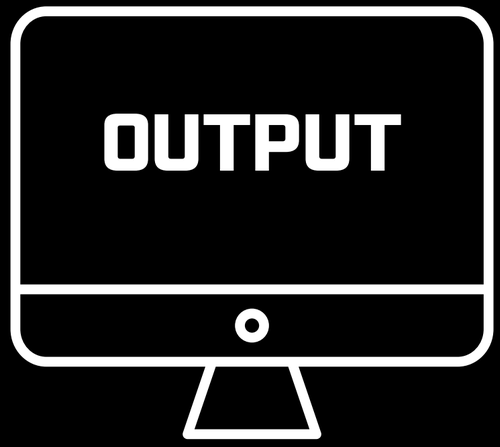
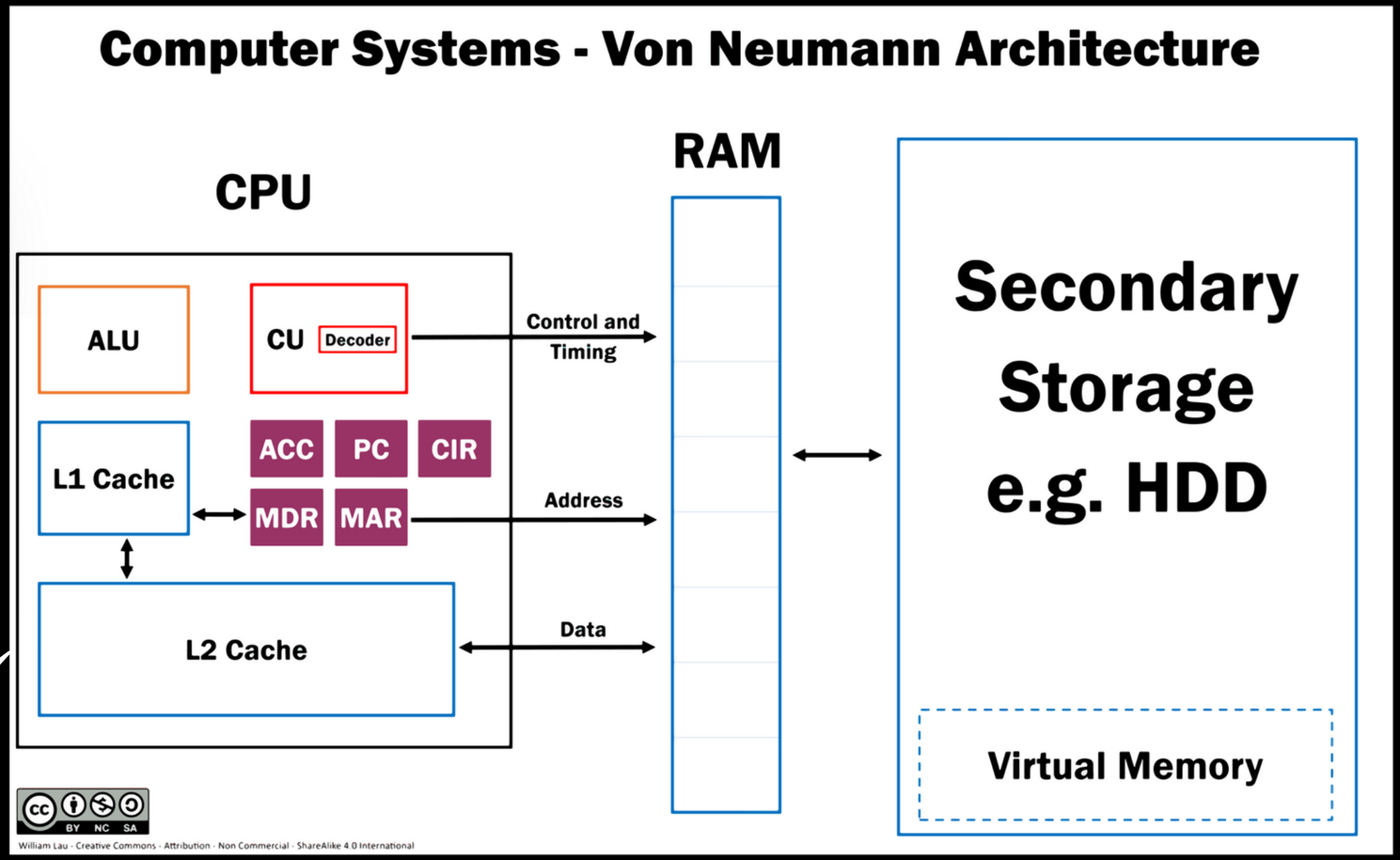


```javascript
let a = 10;
let b = 20;
let result = a + b;
console.log(result);
```

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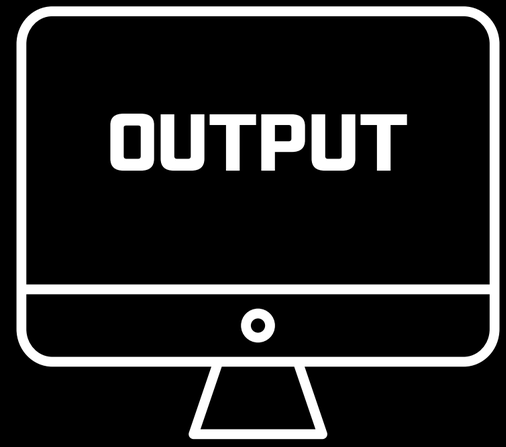


Javascript

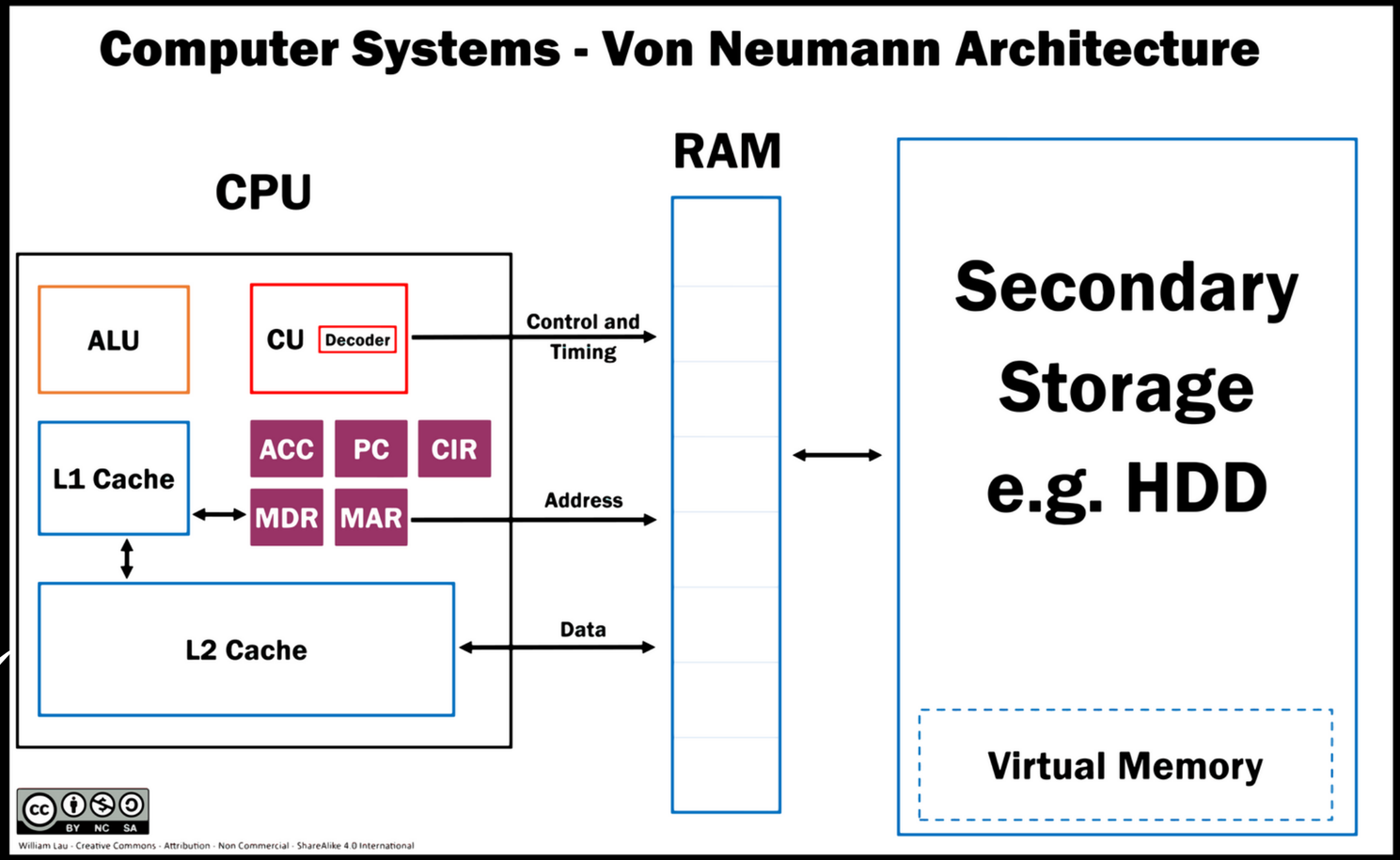
```javascript
// DATA
let a = 10;
let b = 20;

// ALGORITHM
let result = a + b;

// IO
console.log(result);
```

그러나

폰노이만 아키텍처는
PURE 할 수 없습니다

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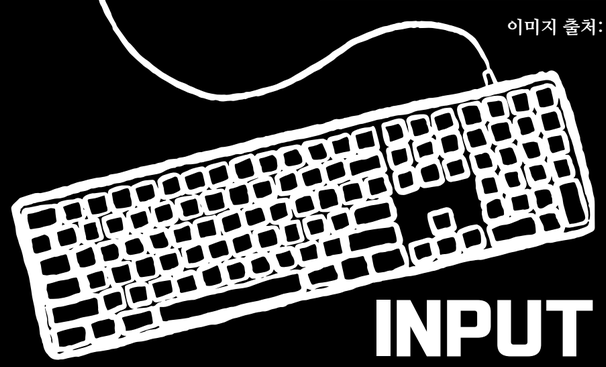


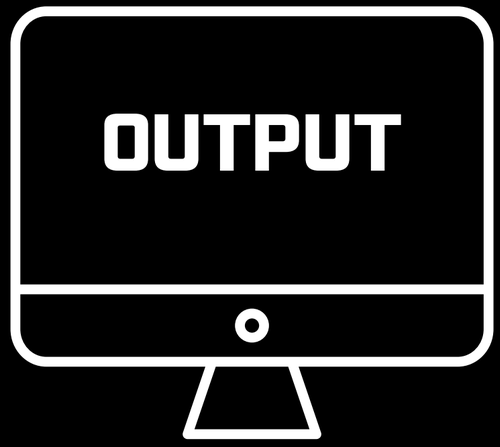

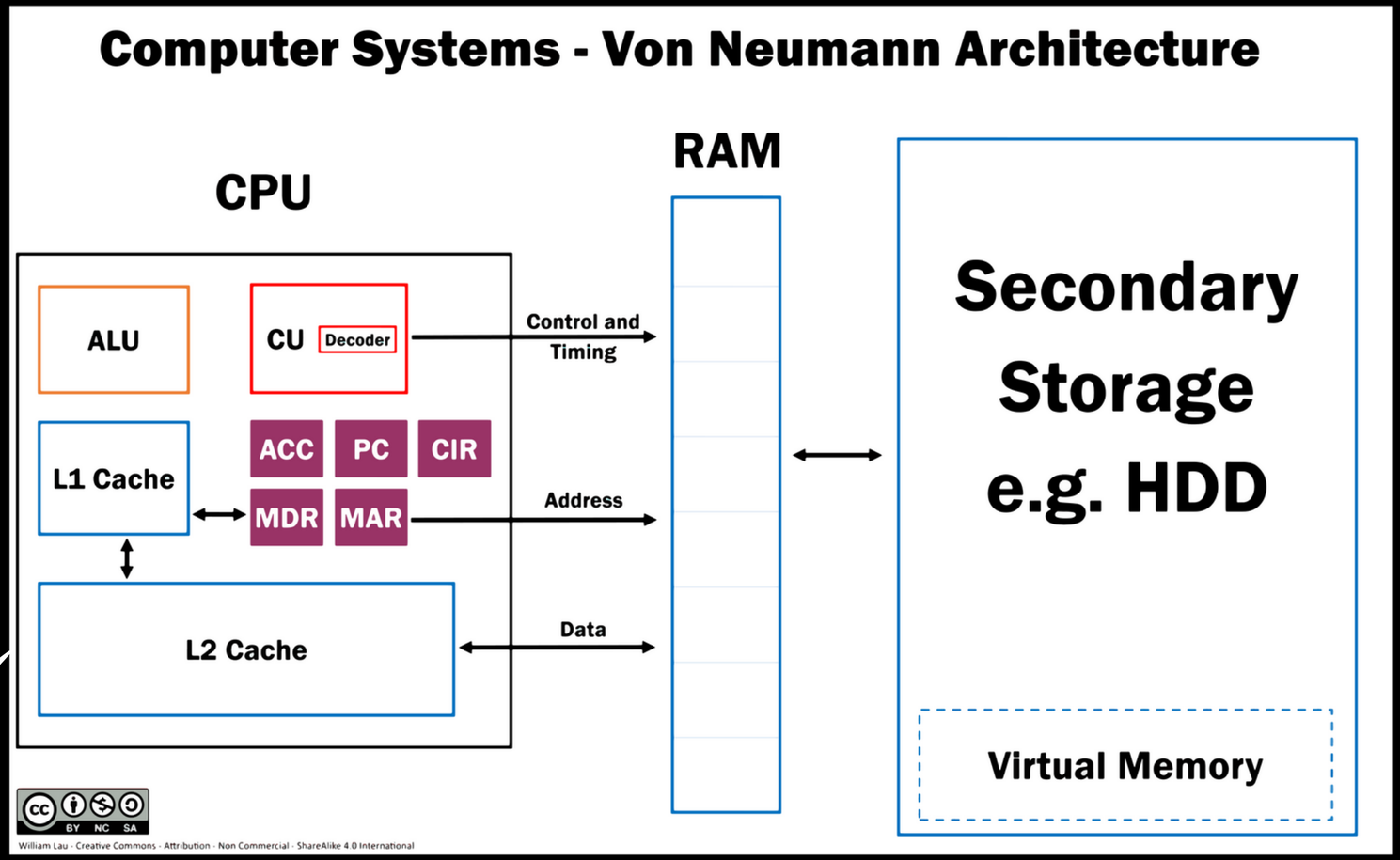


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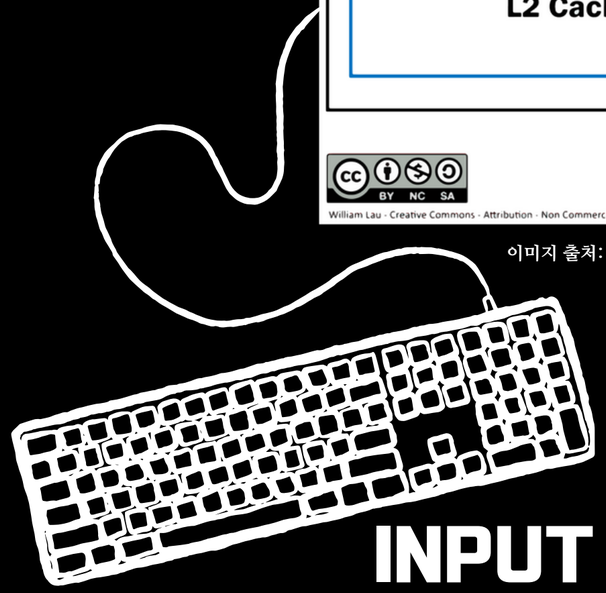
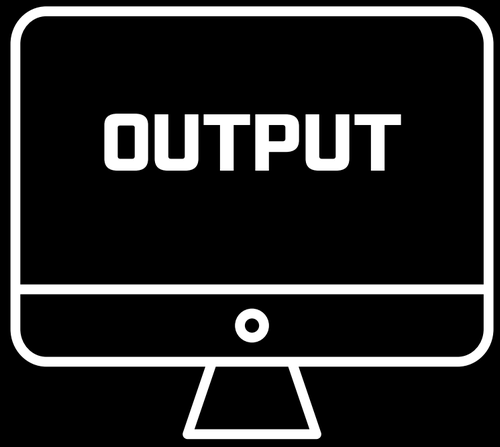


SUM

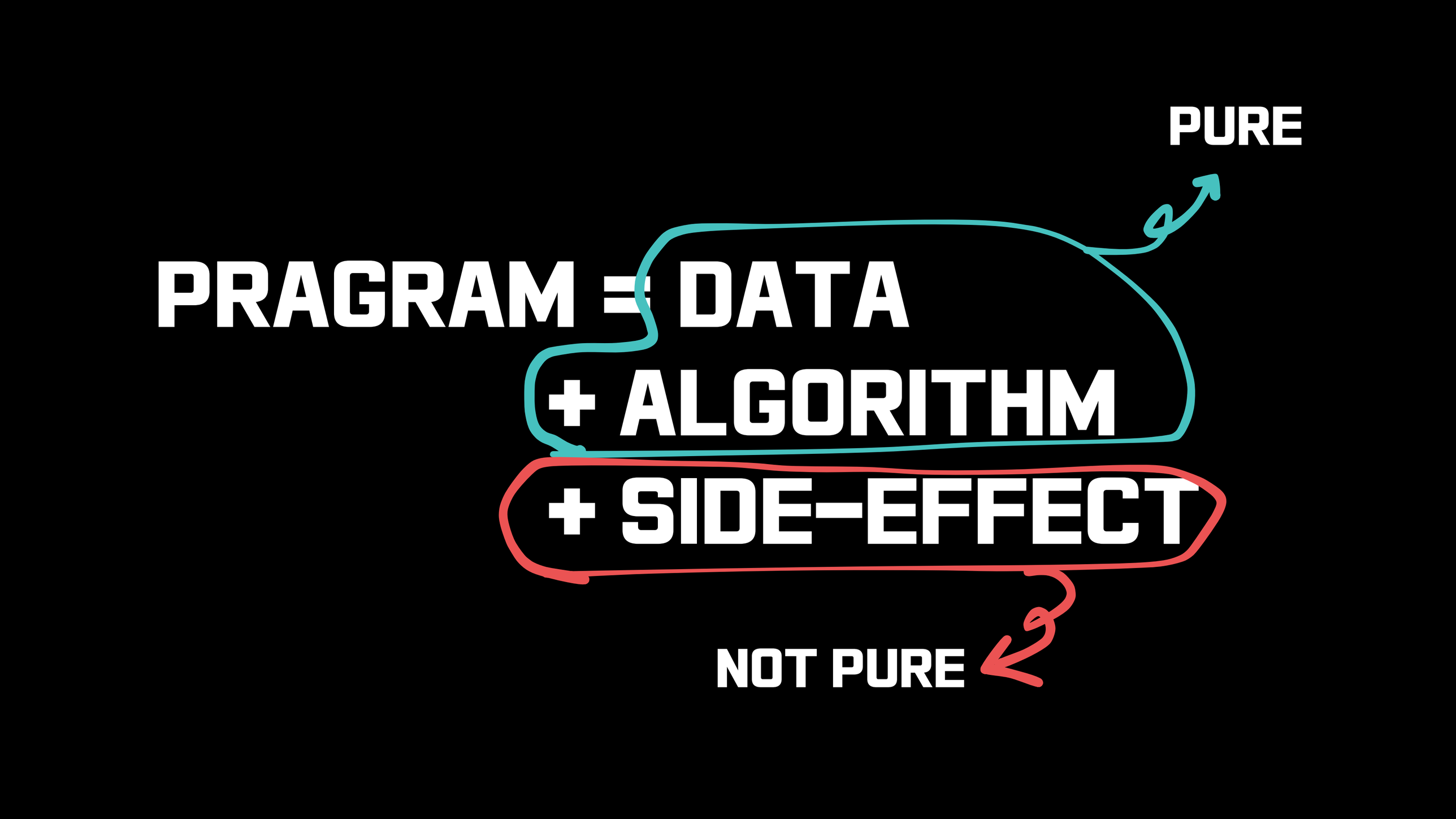
```
async function sum() {
  const a = await fetch('/api/a');
  const b = await fetch('/api/b');
  return a + b;
}
```

PRAGRAM = DATA + ALGORITHM

↓ 확장

PRAGRAM = DATA
+ ALGORITHM
+ SIDE-EFFECT

# 우리가 짜성하는 코드의 쫑류


PURE
PRAGRAM = DATA
+ ALGORITHM
+ SIDE-EFFECT
NOT PURE

# SIDE-EFFECT 를 사용하는 코드

Javascript

```javascript
async function fetchNumbers(): Promise<number[] | null> {
  try {
    const a = await fetch('/api/a');
    const b = await fetch('/api/b');
    return [a, b];
  } catch (error) {
    return null;
  }
}
```

# PURE한 코드(순수 함수)

Javascript

```javascript
function sum(a: number, b: number): number {
  return a + b;
}
```

# SideEffect와 Pure를 섞어서 사용하는 코드

Javascript

```javascript
async function main() {
  const numbers = await fetchNumbers();
  if (numbers != null) {
    const [a, b] = numbers;
    const result = sum(a, b);
    console.log(`a + b = ${a + b}`);
    return 0;
  }
  console.log('Failed to fetch numbers');
  return -1;
}
```