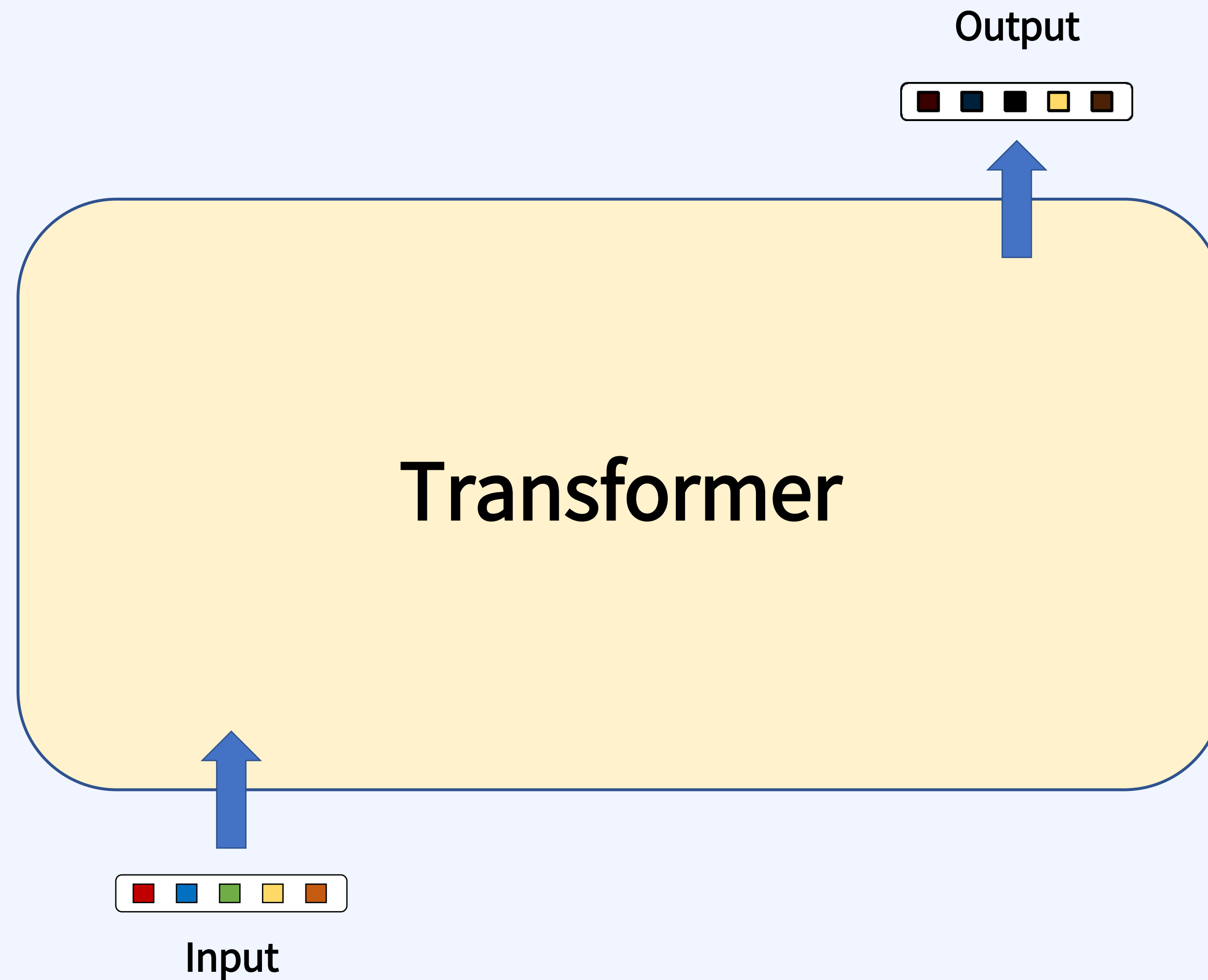


Context Understanding

2 Transformer

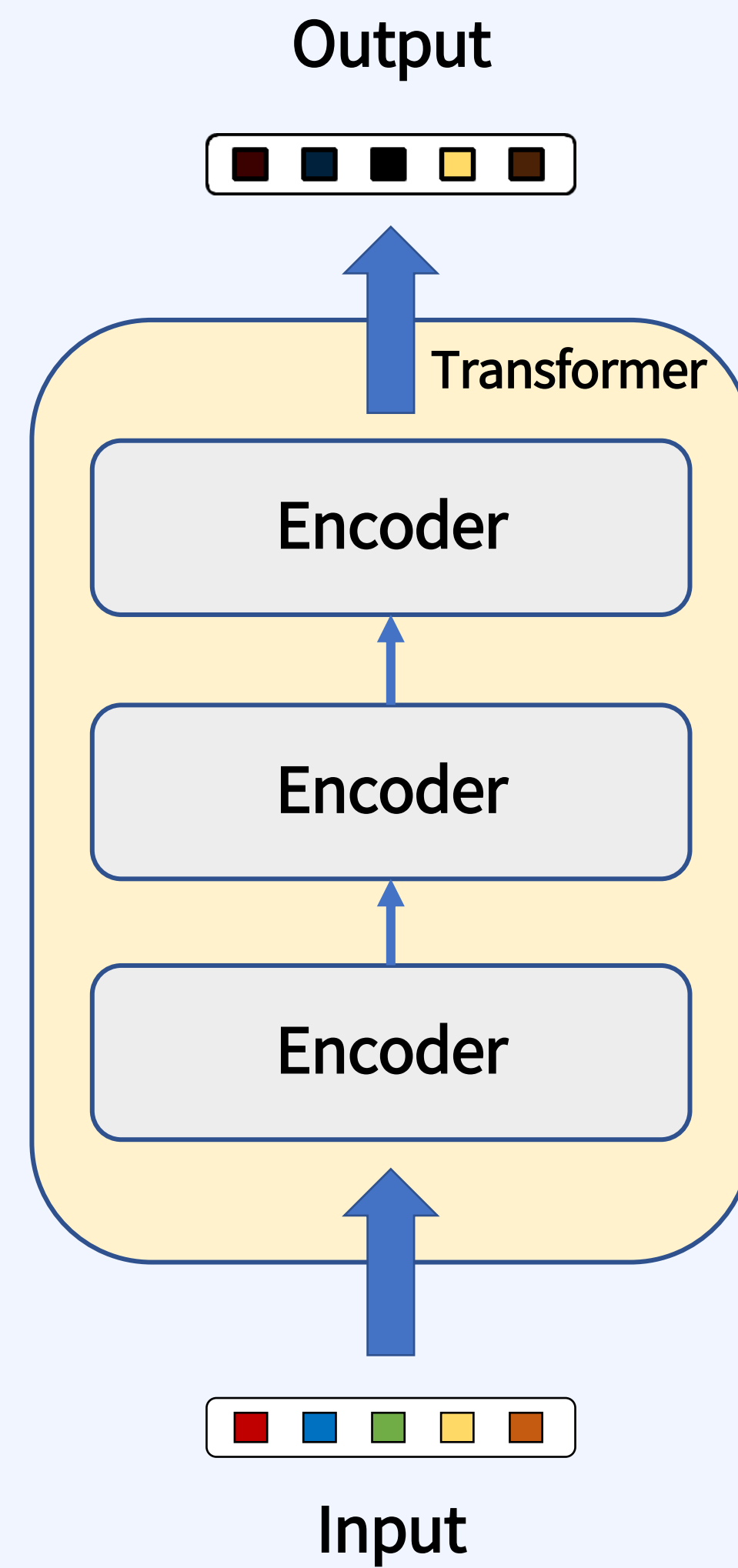
Context Understanding Transformer

2. Transformer



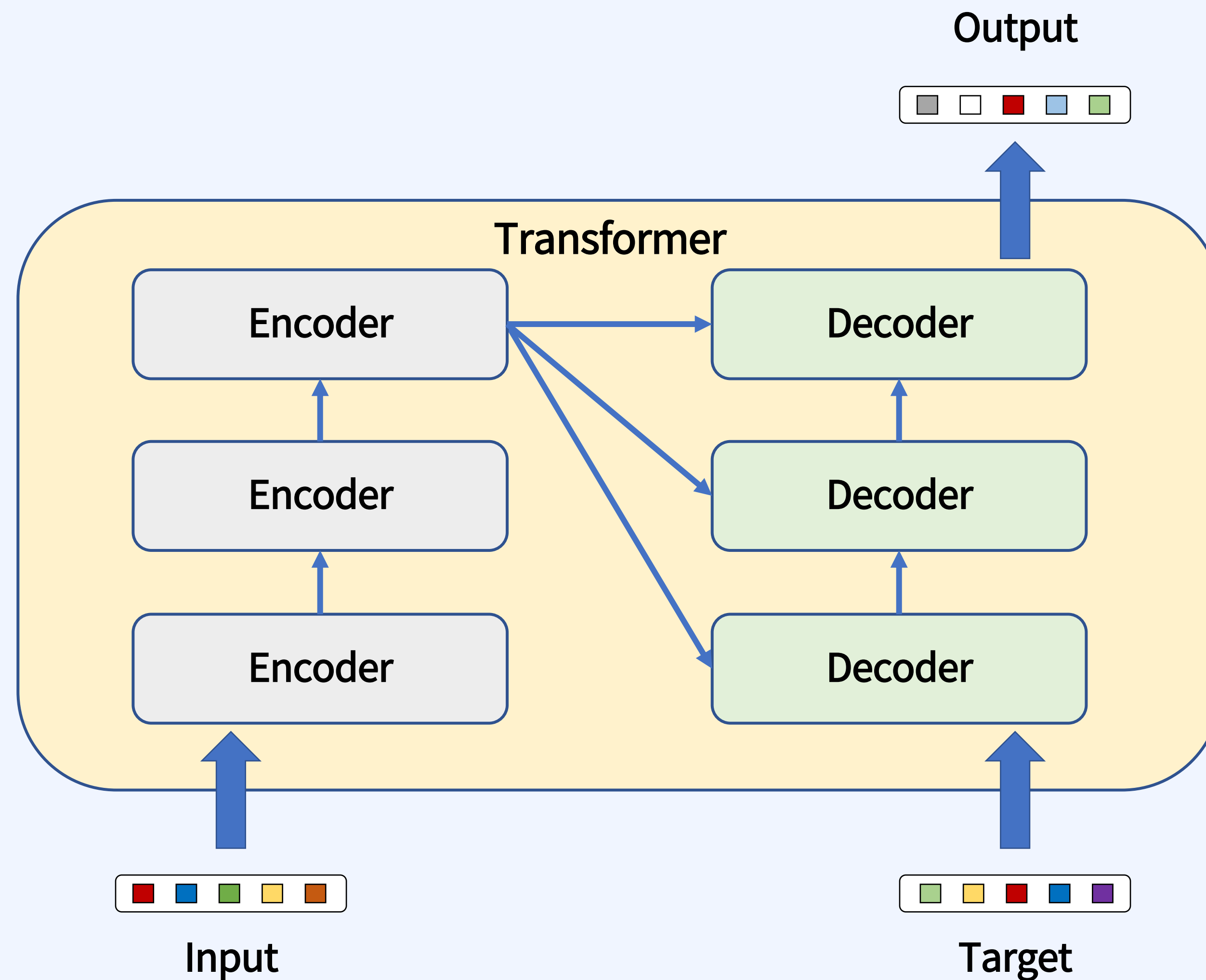
Context Understanding Transformer

2. Transformer



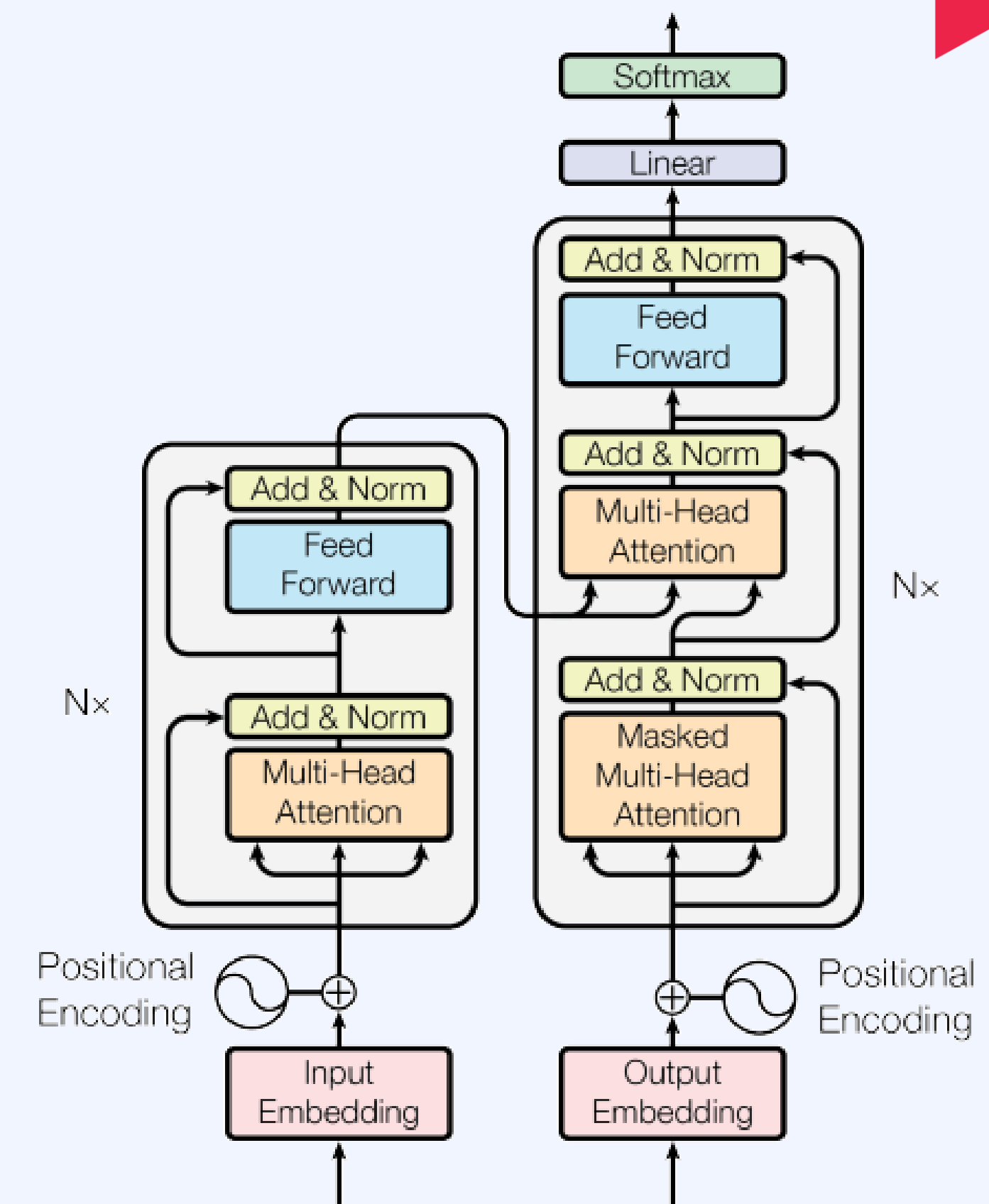
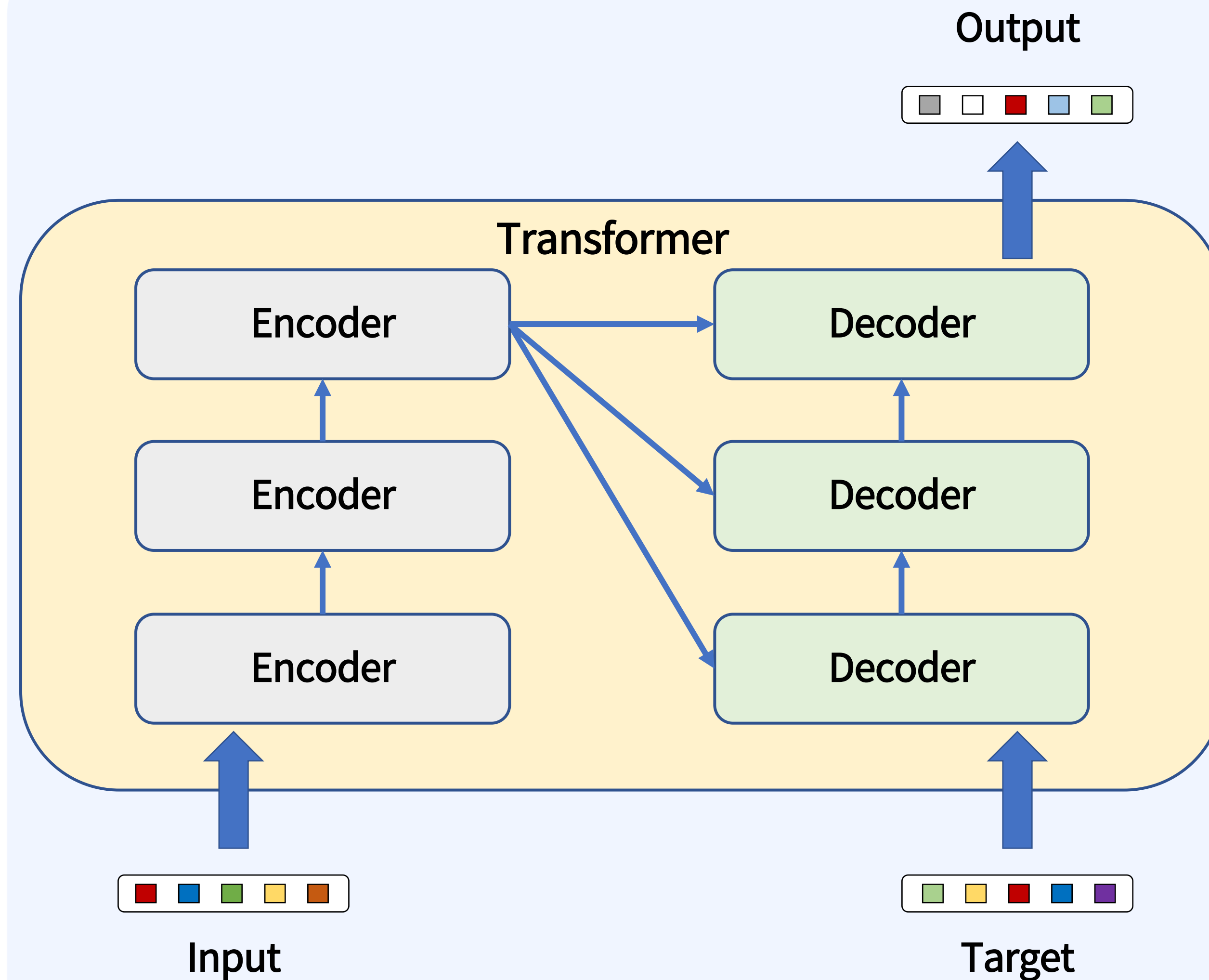
Context Understanding Transformer

2. Transformer



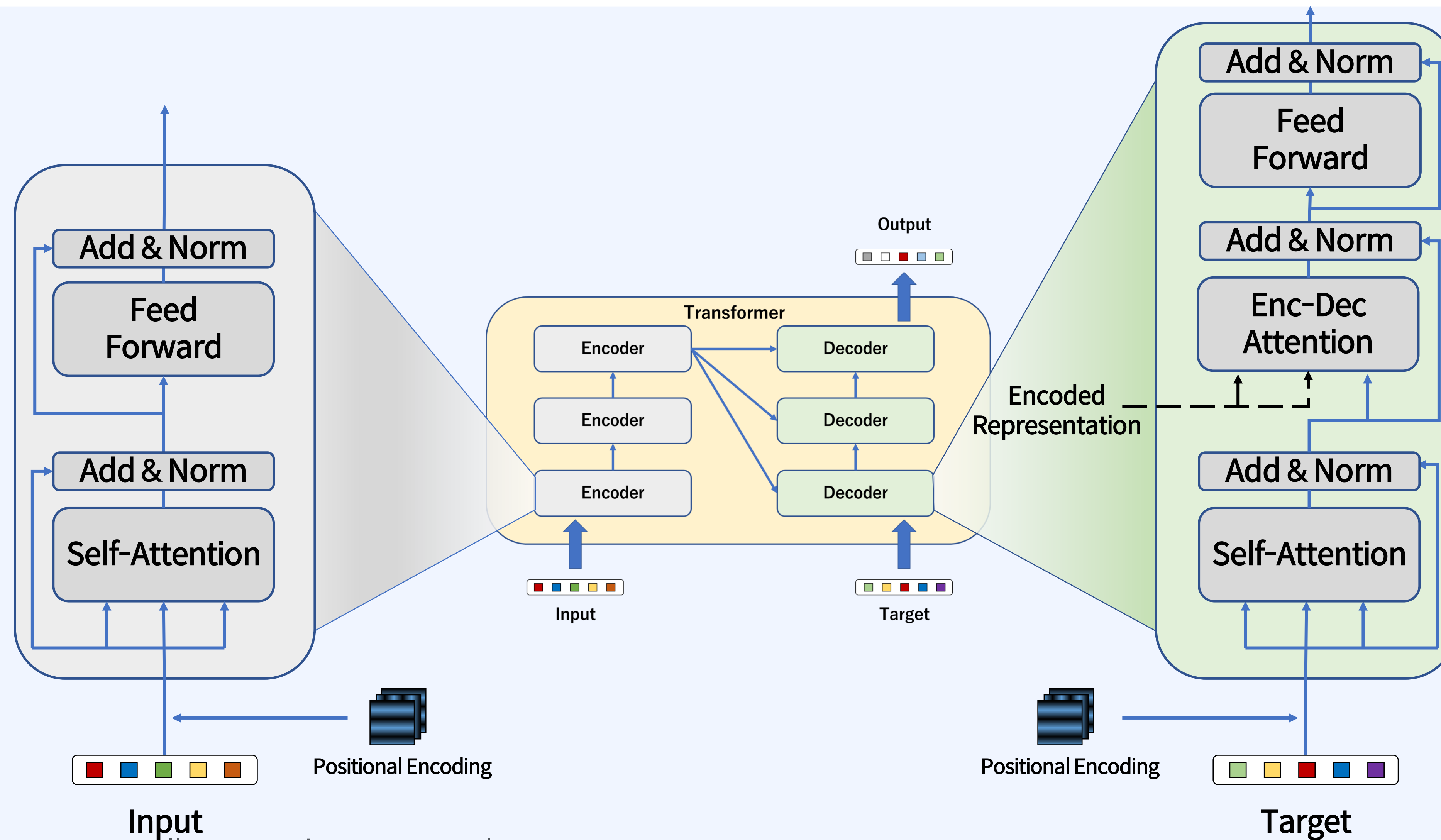
Context Understanding Transformer

2. Transformer



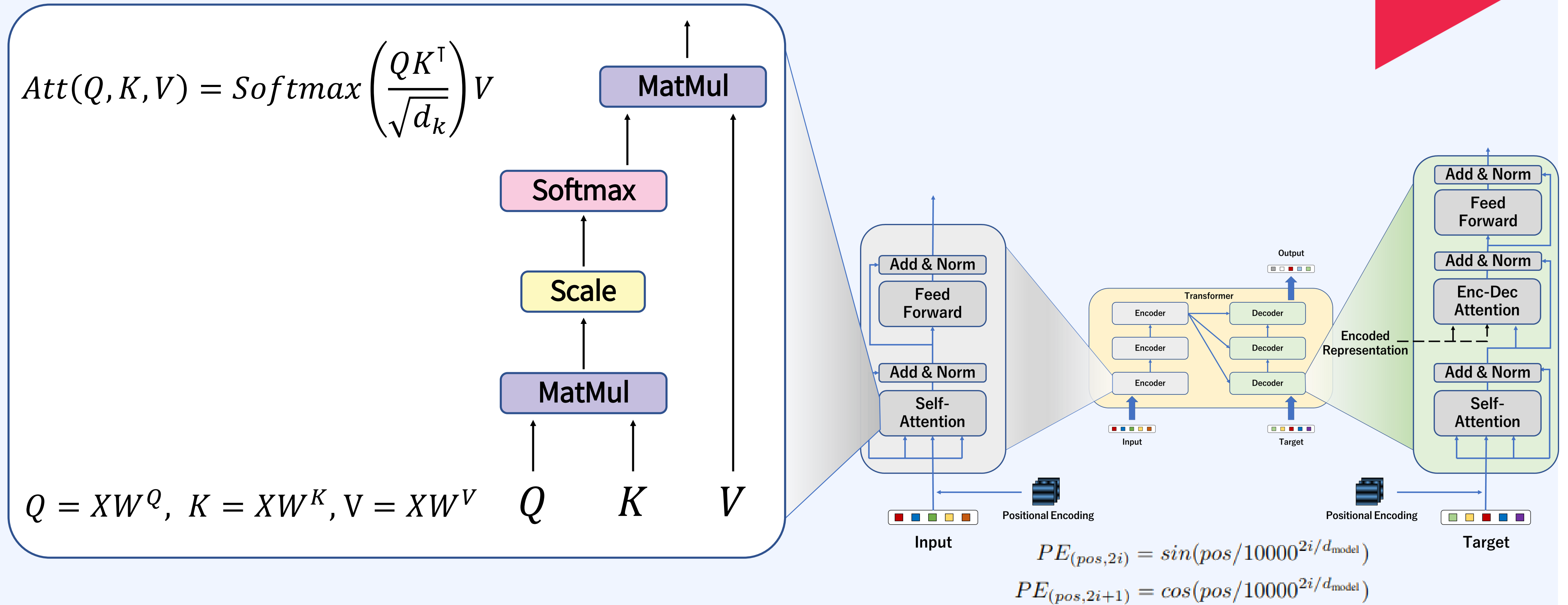
Context Understanding Transformer

2. Transformer



Context Understanding Transformer

2. Transformer



Context Understanding Transformer

2. Transformer

잠깐! **Query, Key, Value** 구조와 의미

arXiv Search results for title: attention

Showing 1-50 of 5,088 results for title: attention

Search v0.5.6 released 2020-02-24

Feedback?

attention

Show abstracts Hide abstracts

50 results per page. Sort results by Announcement date (newest first) Go

1 2 3 4 5 ... Next

1. arXiv:2205.02711 [pdf, other] cs.CV cs.AI doi 10.1145/3477495.3531854

Key Hybrid CNN Based Attention with Category Prior for User Image Behavior Modeling

Authors: Xin Chen, Qingtao Tang, Ke Hu, Yue Xu, Shihang Qiu, Jia Cheng, Jun Lei

Abstract: User historical behaviors are proved useful for Click Through Rate (CTR) prediction in online advertising system. In Meituan, one of the largest e-commerce platform in China, an item is typically displayed with its image and whether a user clicks the item or not is usually influenced by its image, which implies that user's image behaviors are helpful for understanding user's visual preference and... More

Submitted 5 May, 2022; originally announced May 2022.

Comments: Accepted by SIGIR 2022

ACM Class: I.2.6; C.2.1

2. arXiv:2205.02596 [pdf, other] cs.CL cs.AI cs.CY cs.LG

Natural Language Inference with Self-Attention for Veracity Assessment of Pandemic Claims

Authors: M. Arana-Catania, Elena Kochkina, Arkaitz Zubiaga, Maria Liakata, Rob Procter, Yulan He

Abstract: We present a comprehensive work on automated veracity assessment from dataset creation to developing novel methods based on Natural Language Inference (NLI), focusing on misinformation related to the COVID-19 pandemic. We first describe the construction of the novel PANACEA dataset consisting of heterogeneous claims on COVID-19 and their respective information sources. The dataset construction inc... More

Value

arXiv > cs > arXiv:2205.02711

Search... All fields Search

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Computer Science > Computer Vision and Pattern Recognition

[Submitted on 5 May 2022]

Hybrid CNN Based Attention with Category Prior for User Image Behavior Modeling

Xin Chen, Qingtao Tang, Ke Hu, Yue Xu, Shihang Qiu, Jia Cheng, Jun Lei

User historical behaviors are proved useful for Click Through Rate (CTR) prediction in online advertising system. In Meituan, one of the largest e-commerce platform in China, an item is typically displayed with its image and whether a user clicks the item or not is usually influenced by its image, which implies that user's image behaviors are helpful for understanding user's visual preference and improving the accuracy of CTR prediction. Existing user image behavior models typically use a two-stage architecture, which extracts visual embeddings of images through off-the-shelf Convolutional Neural Networks (CNNs) in the first stage, and then jointly trains a CTR model with those visual embeddings and non-visual features. We find that the two-stage architecture is sub-optimal for CTR prediction. Meanwhile, precisely labeled categories in online ad systems contain abundant visual prior information, which can enhance the modeling of user image behaviors. However, off-the-shelf CNNs without category prior may extract category unrelated features, limiting CNN's expression ability. To address the two issues, we propose a hybrid CNN based attention module, unifying user's image behaviors and category prior, for CTR prediction. Our approach achieves significant improvements in both online and offline experiments on a billion scale real serving dataset.

Comments: Accepted by SIGIR 2022

Subjects: Computer Vision and Pattern Recognition (cs.CV); Artificial Intelligence (cs.AI)

ACM classes: I.2.6; C.2.1

Cite as: arXiv:2205.02711 [cs.CV] (or arXiv:2205.02711v1 [cs.CV] for this version) <https://doi.org/10.48550/arXiv.2205.02711> <https://doi.org/10.1145/3477495.3531854>

Related DOI: <https://doi.org/10.1145/3477495.3531854>

Submission history

From: Xin Chen [view email]

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new | recent | 2205

Change to browse by: cs cs.AI

References & Citations

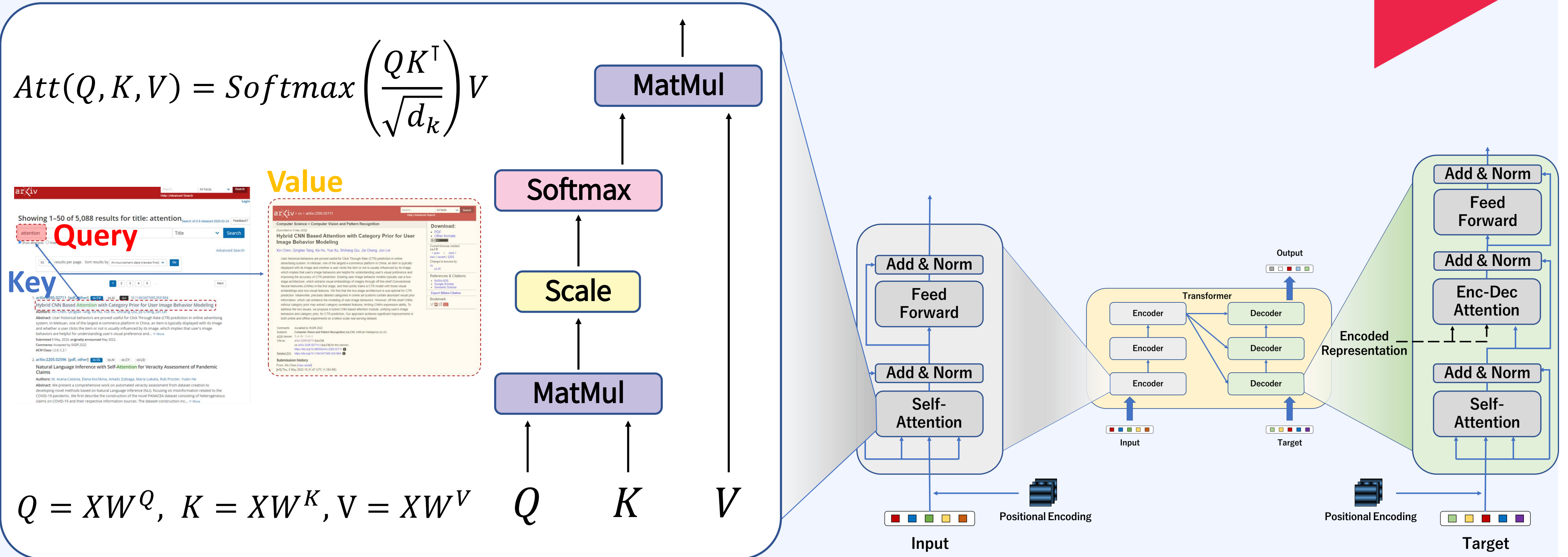
- NASAADS
- Google Scholar
- Semantic Scholar

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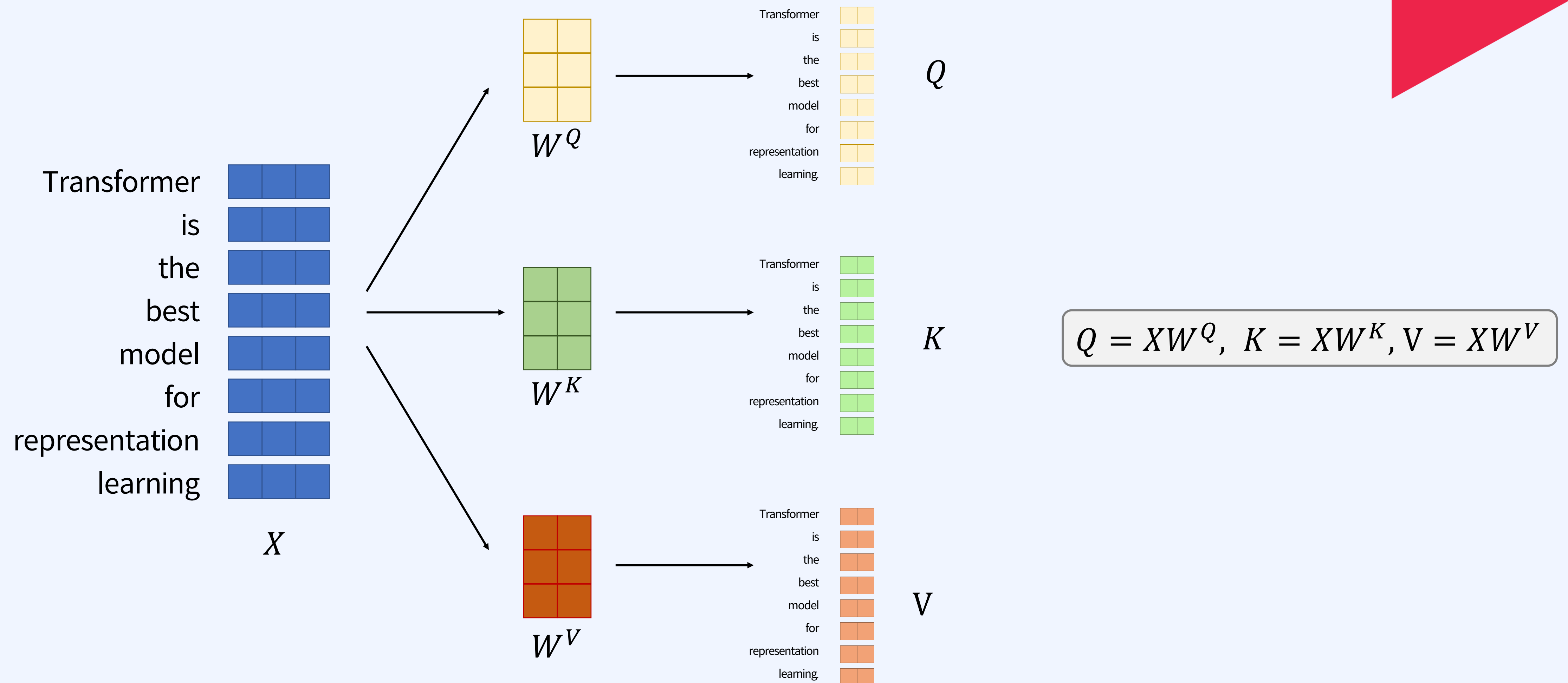
Context Understanding Transformer

2. Transformer



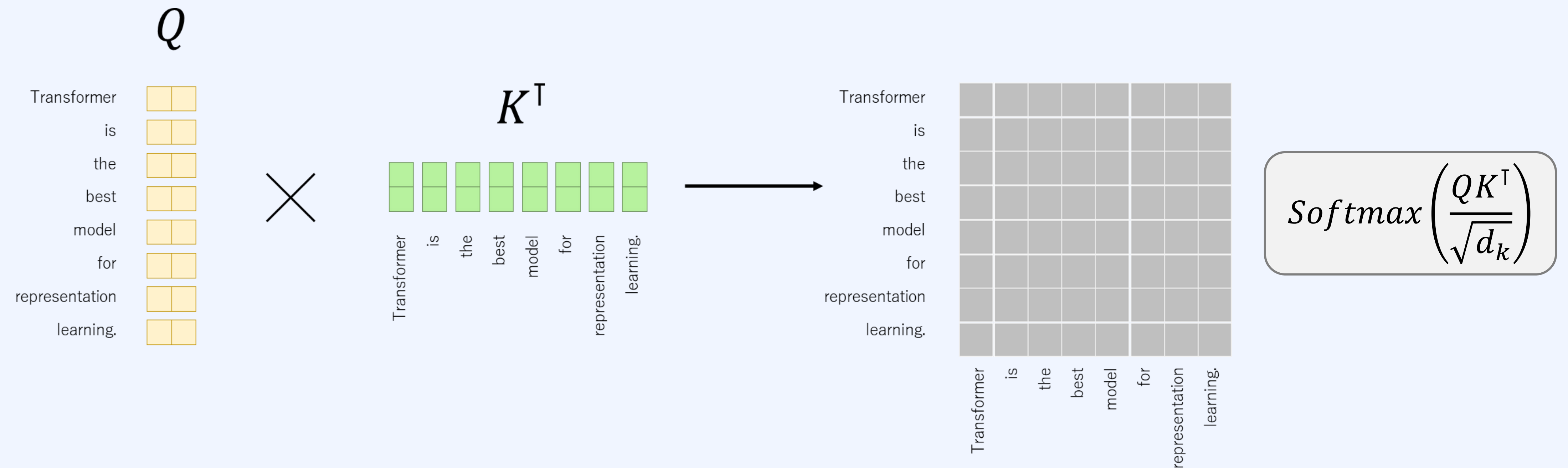
Context Understanding Transformer

2. Transformer



Context Understanding Transformer

2. Transformer



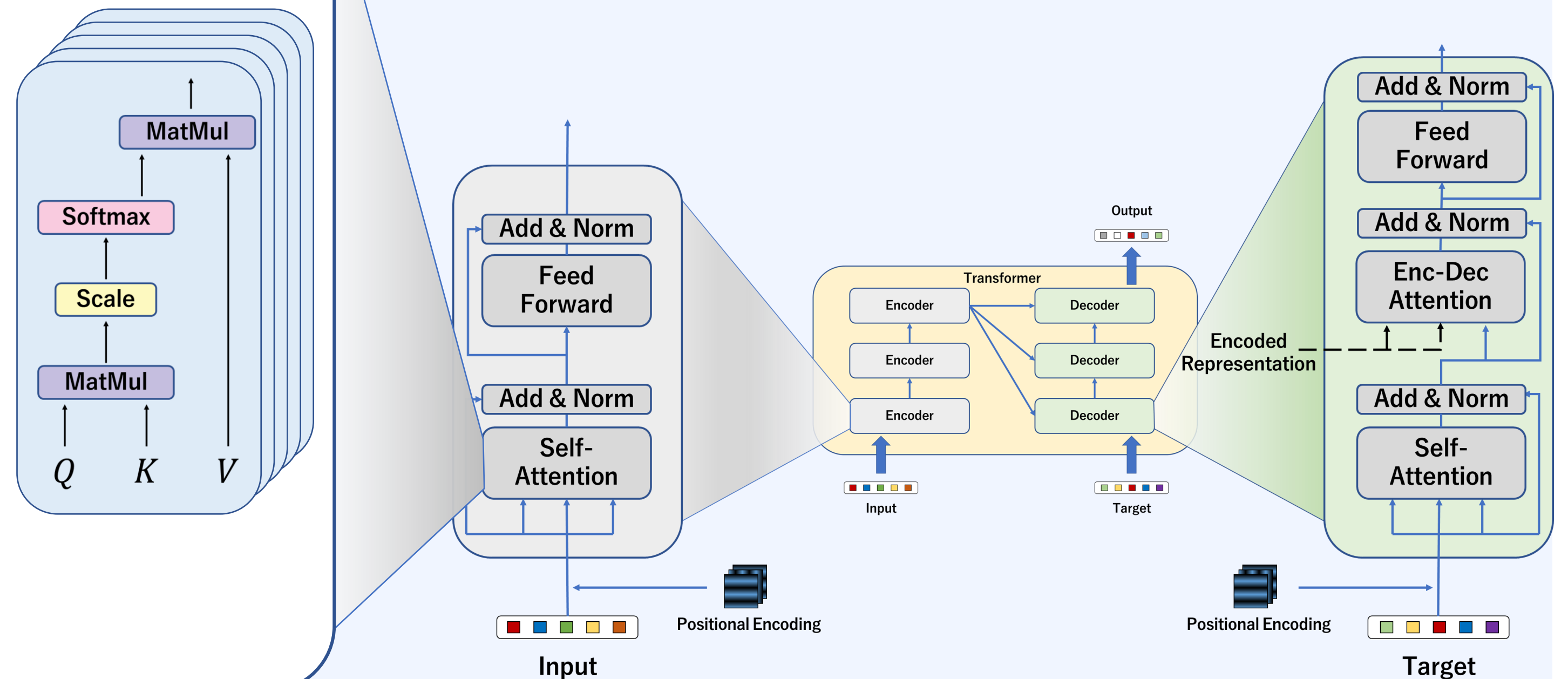
Context Understanding Transformer

2. Transformer

$$MultiHead(Q, K, V) = Concat(Z_1, Z_2, \dots, Z_h)W^O$$

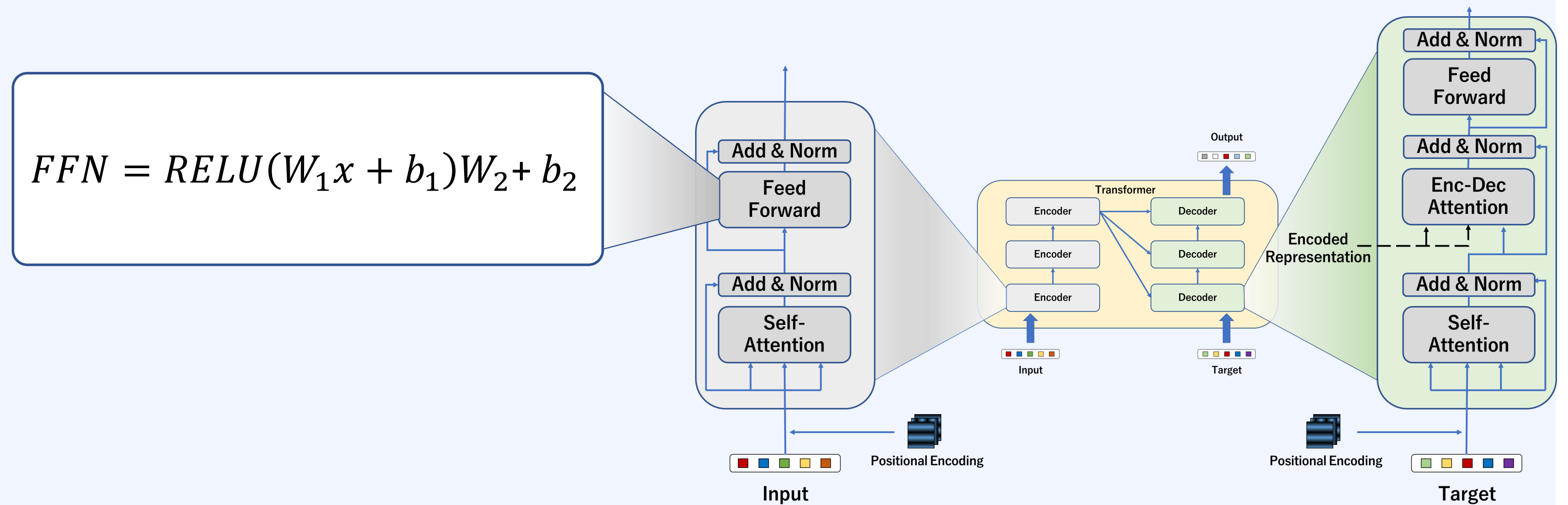
$$Z_i = Att(Q_i, K_i, V_i) = Softmax\left(\frac{Q_i K_i^T}{\sqrt{d_k}}\right) V_i$$

$$Q_i = XW^{Q_i}, K_i = XW^{K_i}, V_i = XW^{V_i} \\ (i = 1, 2, \dots, h)$$



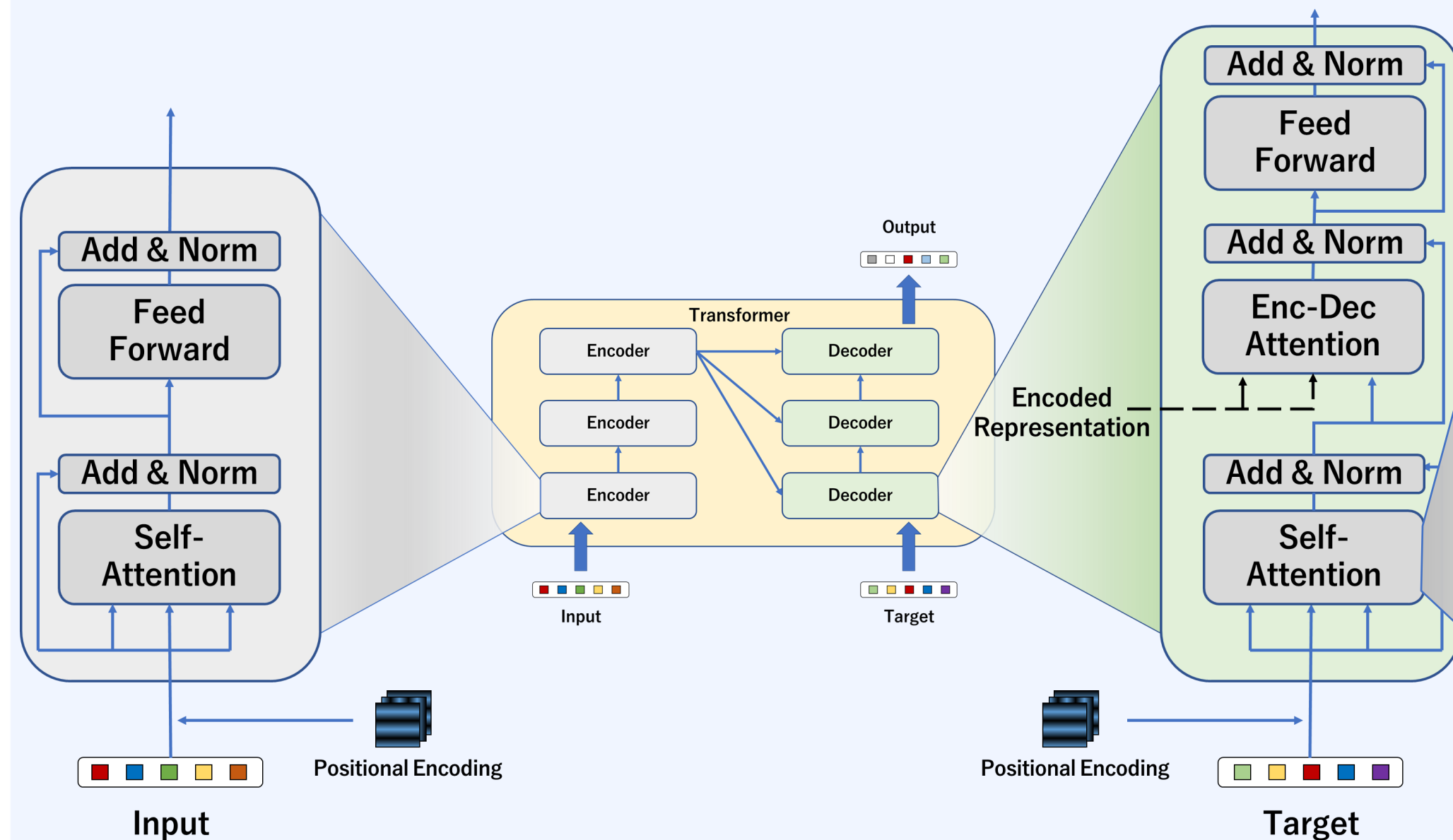
Context Understanding Transformer

2. Transformer



Context Understanding Transformer

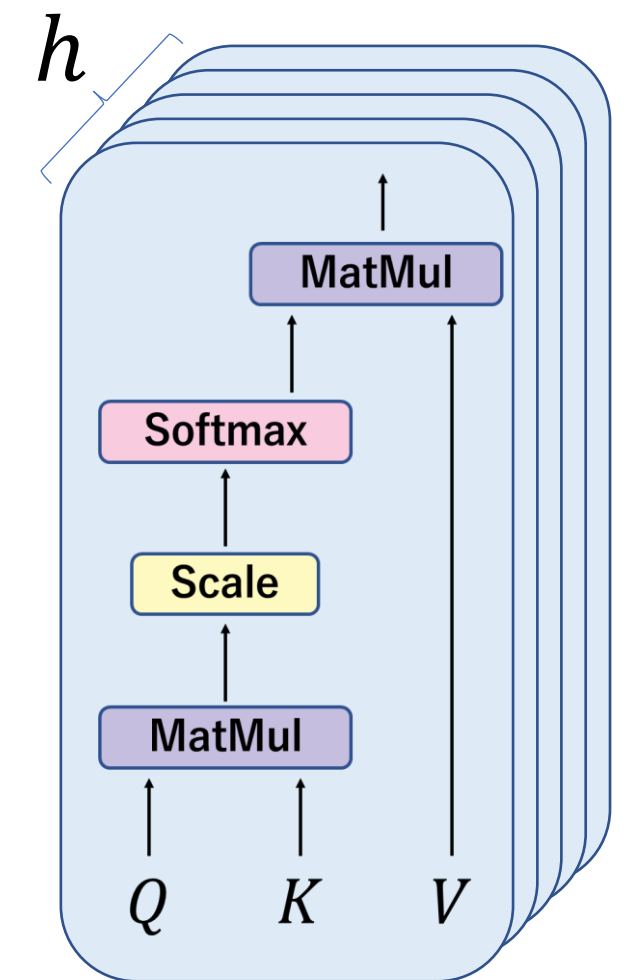
2. Transformer



$$MultiHead(Q, K, V) = Concat(Z_1, Z_2, \dots, Z_h)W^O$$

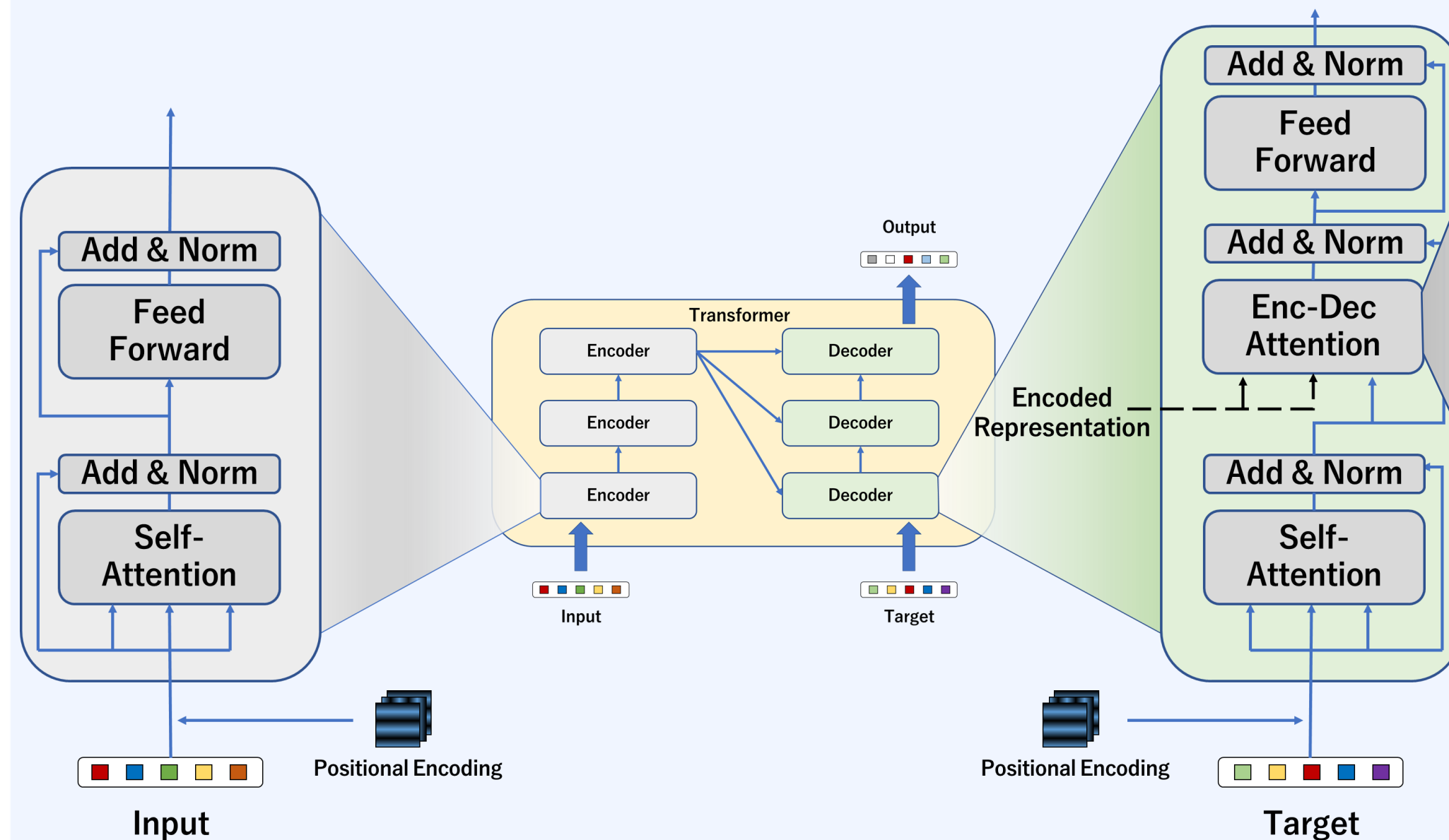
$$Z_i = Att(Q_i, K_i, V_i) = Softmax\left(\frac{Q_i K_i^T}{\sqrt{d_k}}\right) V_i$$

$$Q_i = YW^{Q_i}, K_i = YW^{K_i}, V_i = YW^{V_i} \\ (i = 1, 2, \dots, h)$$



Context Understanding Transformer

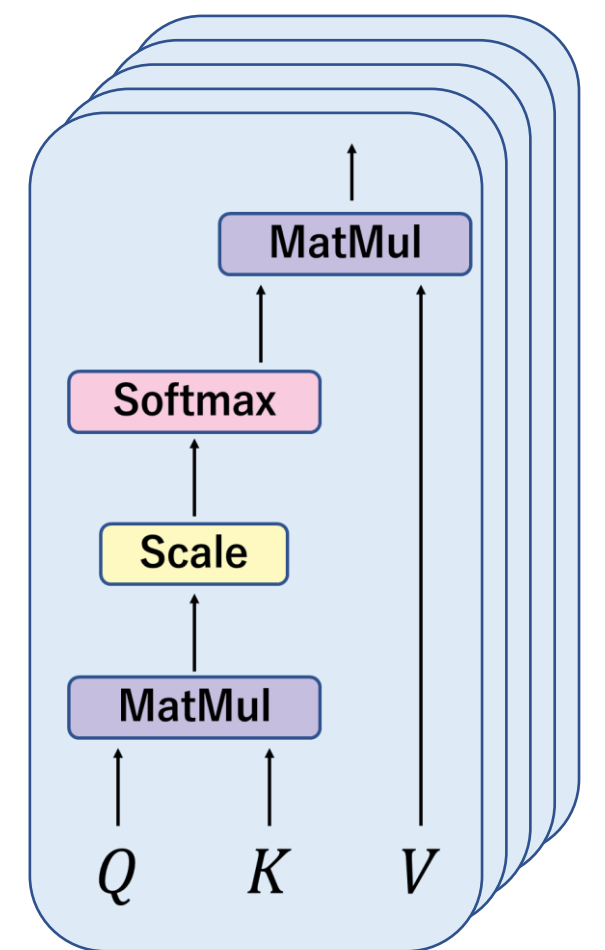
2. Transformer



$$MultiHead(Q, K, V) = Concat(Z_1, Z_2, \dots, Z_h)W^O$$

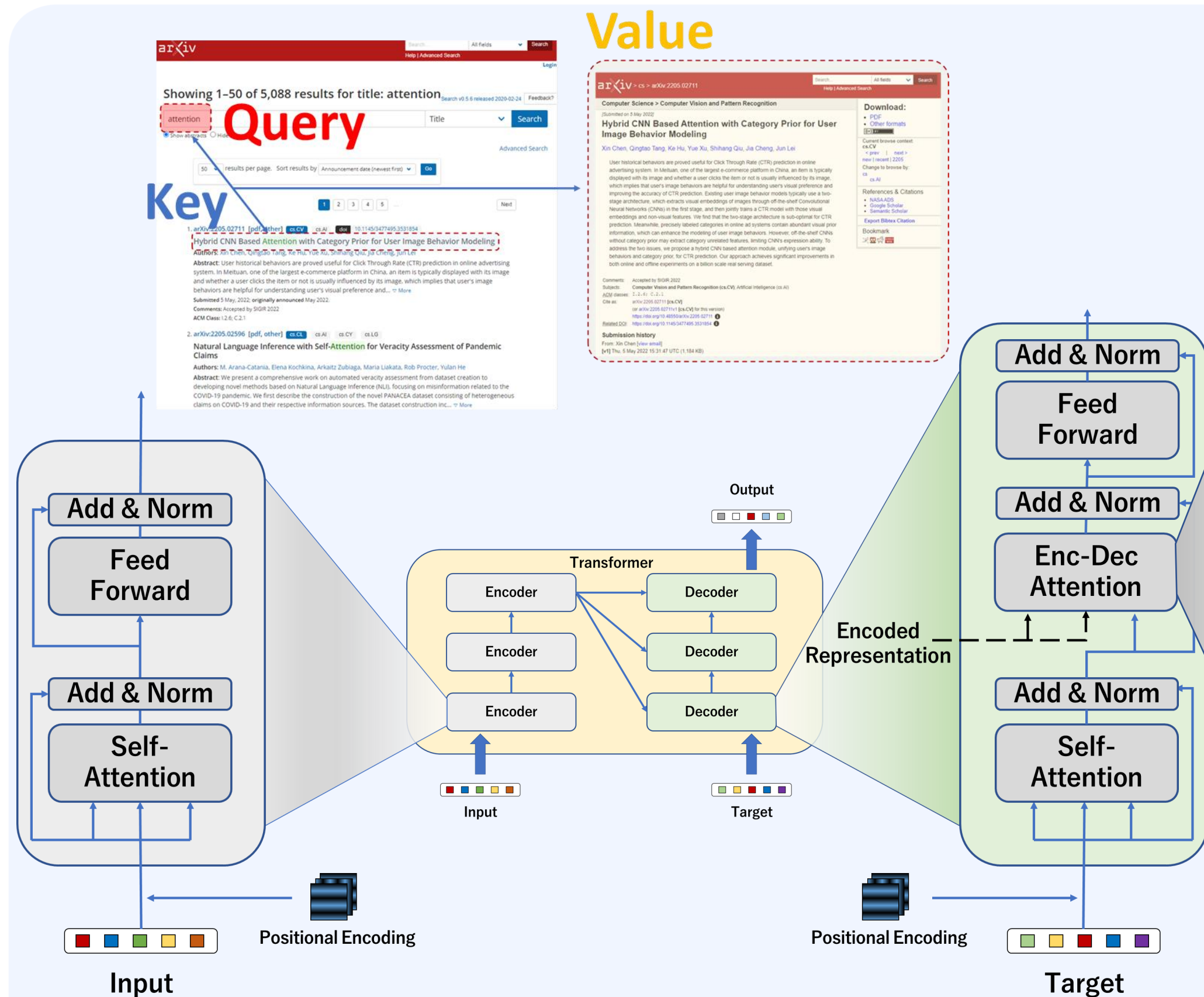
$$Z_i = Att(Q_i, K_i, V_i) = Softmax\left(\frac{Q_i K_i^T}{\sqrt{d_k}}\right) V_i$$

$$Q_i = YW^{Q_i}, K_i = XW^{K_i}, V_i = XW^{V_i} \\ (i = 1, 2, \dots, h)$$



Context Understanding Transformer

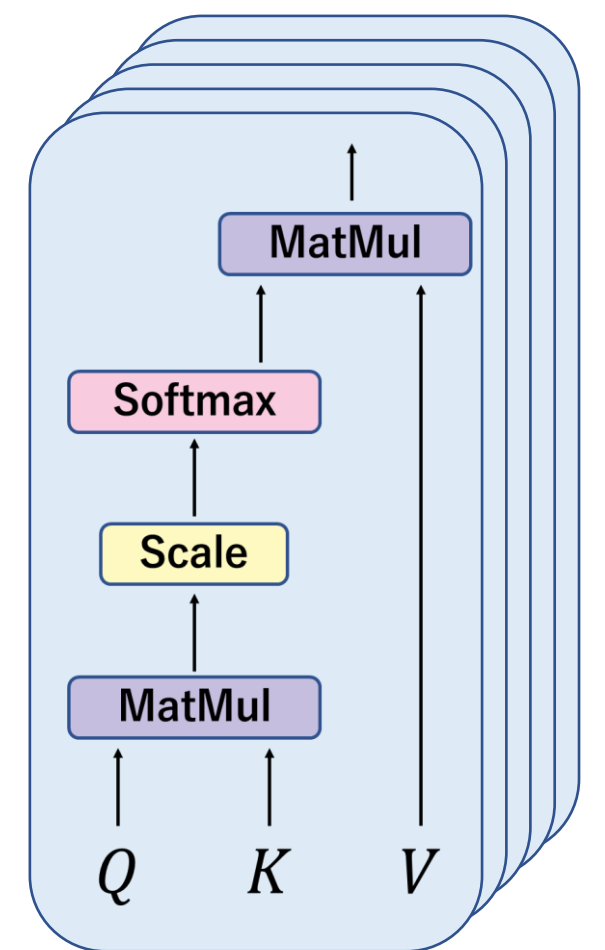
2. Transformer



$$MultiHead(Q, K, V) = Concat(Z_1, Z_2, \dots, Z_h)W^O$$

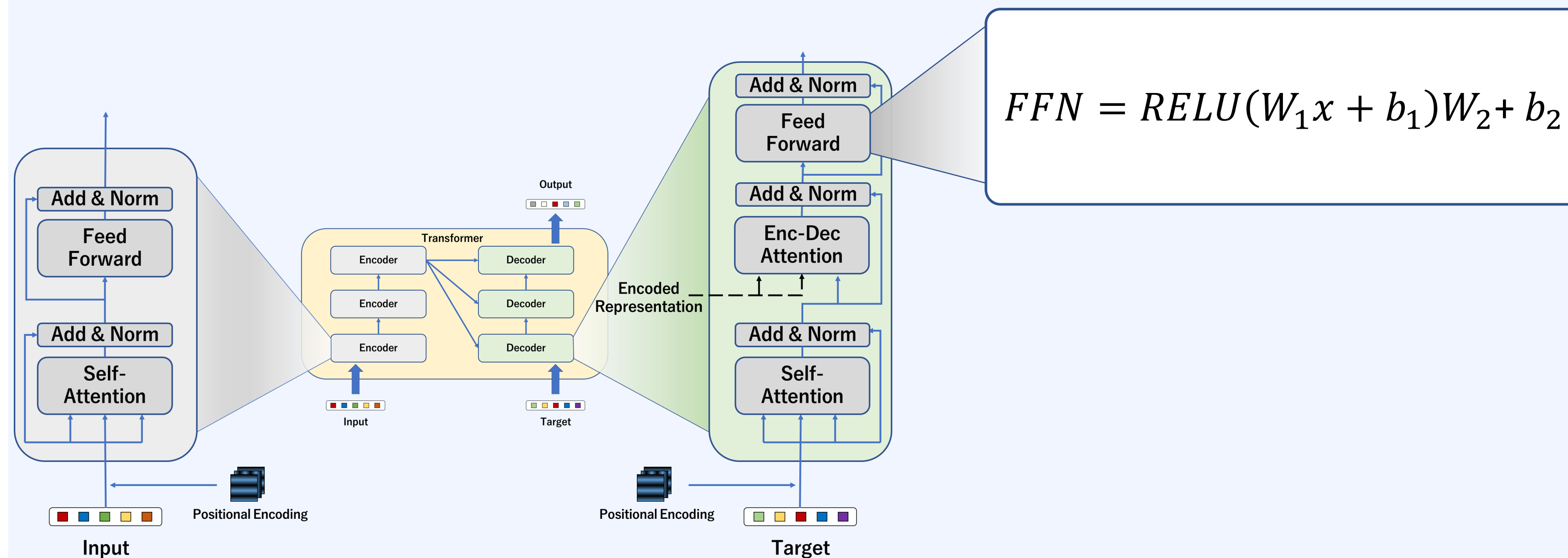
$$Z_i = Att(Q_i, K_i, V_i) = Softmax\left(\frac{Q_i K_i^T}{\sqrt{d_k}}\right) V_i$$

$$Q_i = YW^{Q_i}, K_i = XW^{K_i}, V_i = XW^{V_i} \quad (i = 1, 2, \dots, h)$$



Context Understanding Transformer

2. Transformer



Transformer

코드 구현

Context Understanding Transformer (코드 구현)

2. Transformer

Context Understanding Transformer (코드 구현)

2. Transformer

Context Understanding Transformer (코드 구현)

2. Transformer

Context Understanding Transformer (코드 구현)

2. Transformer

Context Understanding Transformer (코드 구현)

2. Transformer

Context Understanding Transformer (코드 구현)

2. Transformer

Context Understanding Transformer

2. Transformer Attention

제목
제목

소제목

번호

클립제목
클립제목

Customer
Journey

Intelligent
Insight

Action

Google Analytics 를 통해 **Customer Journey**를 이해할 수 있습니다.

GA가 지원하는 다양한 기능으로 데이터에서 **Insight**를 얻고,

이를 기반으로 **마케팅 Action**을 실행할 수 있으며,

비즈니스의 성과를 극대화할 수 있습니다.

강사님 크로마키
280px * 400px

What is Google Analytics?

3.

맞춤 보고서 및
세그먼트 활용

Google Analytics is the **#1 Web Analytics Tool** in the world: a **Free** service that lets you understand how users get to your site and apps, what they do while there, and take action through targeting.

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GA를 사용해야 하는
이유?

다양해진 온라인 행동 패턴

3.

맞춤 보고서 및
세그먼트 활용

다양해진 사용자의 행동 패턴



Multi Channel Device



Multi Channel Device

다양한 디바이스 경로를 통한 유입이 가능해짐으로써
고객 온라인 행동 패턴 수치화, 고객 데이터 활용 유용한 환경 도래

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Google Analytics의 목표를 알아보자

3.

맞춤 보고서 및
세그먼트 활용

홈페이지 목표

Ecommerce

Selling products or services

Lead generation

Collecting potential leads

Content publisher

Engagement & fréquent visitation

Online information

Help customers find information

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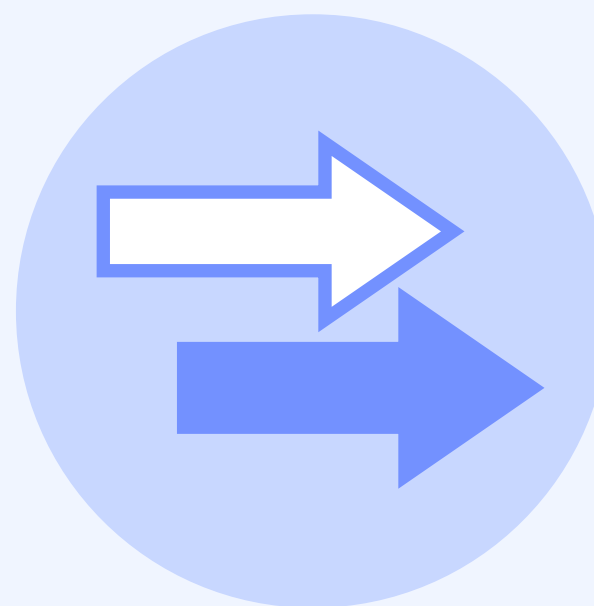
Google Analytics 보고서 흐름

3.

맞춤 보고서 및
세그먼트 활용



Audience
Who?



Acquisition
How?



Behavior
What?

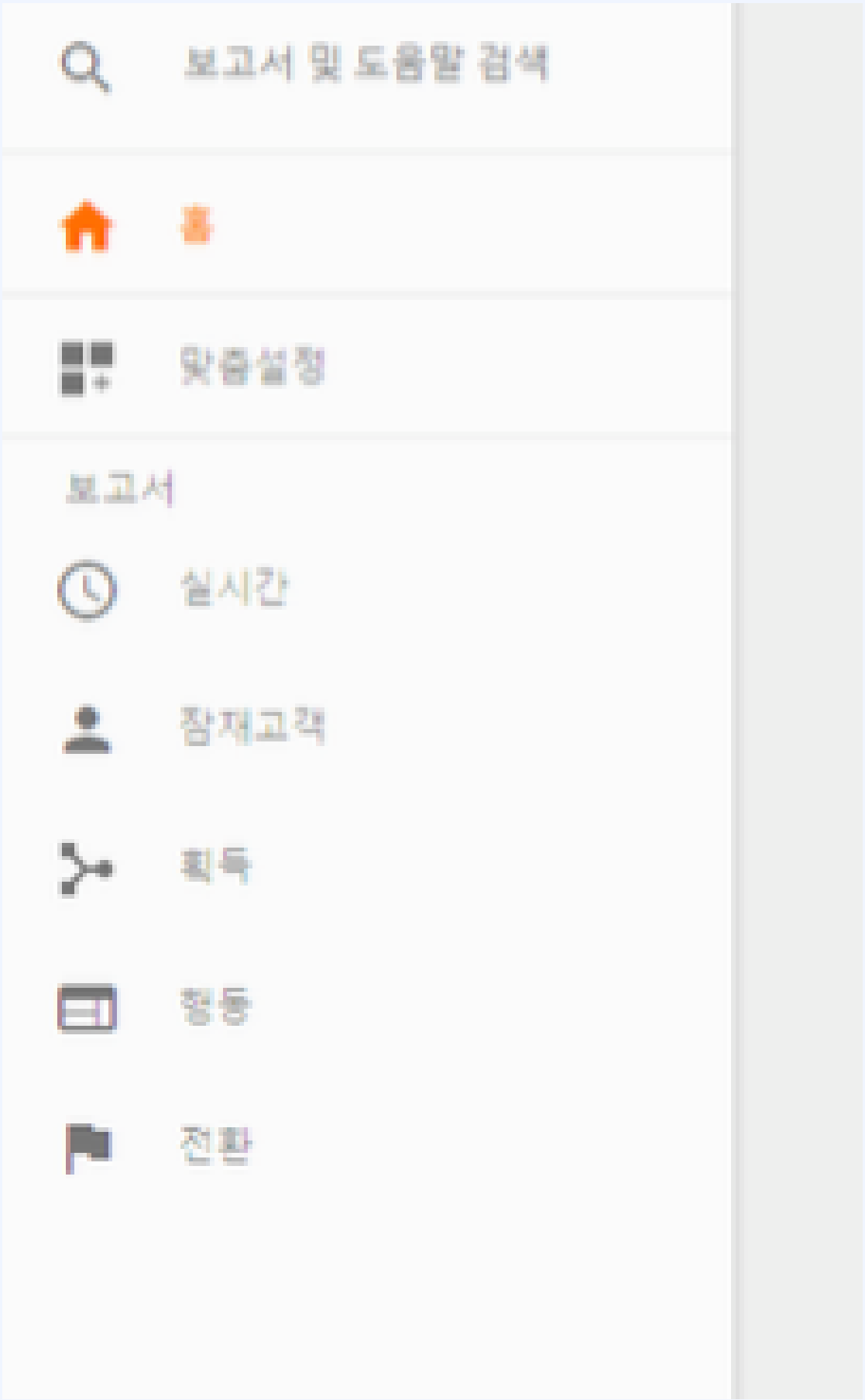


Conversion
What Value?

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Google Analytics
보고서 흐름

3.
맞춤 보고서 및
세그먼트 활용



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커리큘럼에 맞는 강의 제목

3 커리큘럼에 맞는 클립 제목

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커리큘럼에 맞는 강의 제목

4 커리큘럼에 맞는 클립 제목

강사님 크로마키
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커리큘럼에 맞는 강의 제목

5 커리큘럼에 맞는 클립 제목

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예비 비즈니스 활동과 데이터 정련하기

3.

맞춤 보고서 및
세그먼트 활용

```
>>> a = "Life is too short, you need python"
>>> if 'wife' in a :
***   print('wife')
*** elif 'python' in a and 'you' not in a :
***   print('wife')
```

```
>>> a = "Life is too short, you need python"
>>> if 'wife' in a :
***   print('wife')
```

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자바를 시작하기 전에

3.

맞춤 보고서 및
세그먼트 활용

자바(Java)란?

프로그래밍 언어(programing language)

컴퓨터 프로그램(애플리케이션)을 만드는데 사용
실행환경(JRE) + 개발도구(JDK) + 라이브러리(API)
쉽고 빠르게 애플리케이션 개발 가능



강사님 크로마키
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자바를 시작하기 전에

3.

맞춤 보고서 및
세그먼트 활용

자바는 어디에 쓰이나요?

- PC 애플리케이션
- 웹 애플리케이션
- 모바일 애플리케이션 (안드로이드)
- 빅 데이터(Big Data)
- 게임(마인 크래프트), 과학, 소형 기기 등



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자바를 시작하기 전에

3.

맞춤 보고서 및
세그먼트 활용

자바의 역사

- JDK 1.0 (January 23, 1996)
- JDK 1.0 (January 23, 1996)
- JDK 1.0 (January 23, 1996)
- JDK 1.0 (January 23, 1996)
- JDK 1.0 (January 23, 1996)
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예비 비즈니스 활동과 데이터 정련하기

3.

맞춤 보고서 및
세그먼트 활용

정보 요구를 충족할 수 있는
데이터 인지를 확인

- 모든 데이터는 활동에 의해 생성되는가?
- 주제영역
(Subject Area) 표현

상호작용성
(CRUD Matrix)
분석을 통한 정련화

정보 요구를 충족할 수 있는
비즈니스 활동 인지를 확인

- 모든 활동은 적어도 하나의 데이터에 대하여 작용하고 있는가?

강사님 크로마키
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