

Ink & Accent Color Scheme

Clean, Professional, No Backgrounds

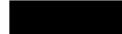
Template Demonstration

September 20, 2025

All backgrounds are pure white - colors used only for text and accents

Color Palette

Primary Colors

-  Pure Black - Headers & Main Text
-  Warm Coral - Primary Accents
-  Slate Gray - Secondary Text

Supporting Colors

-  Success Green - Positive
-  Warning Amber - Attention
-  Info Blue - Information

Note: No colored backgrounds - maintaining clean white space throughout

Typography Hierarchy

Large Header

Highlighted Subheader

Regular body text appears in Pure Black

Secondary information in Slate Gray

Information callouts in Info Blue

Success messages in green

- Primary bullet points
 - Regular list items
 - Secondary information
-
- ① Numbered items
 - ② With different accents
 - ③ For emphasis

Mathematical Formulas

Attention Mechanism

$$\text{score}(h_t, \bar{h}_s) = h_t^T W_a \bar{h}_s$$

$$\alpha_{ts} = \frac{\exp(\text{score}(h_t, \bar{h}_s))}{\sum_{s'} \exp(\text{score}(h_t, \bar{h}_{s'}))}$$

$$c_t = \sum_s \alpha_{ts} \cdot \bar{h}_s$$

Key Components

- h_t - decoder hidden state
- \bar{h}_s - encoder hidden states
- α_{ts} - **attention weights**
- c_t - context vector

Clean presentation with accent colors only on key elements

Content Blocks - No Backgrounds

Definition

A **sequence-to-sequence** model transforms variable-length input to variable-length output.

Example

Translation: “Hello” → “Bonjour”

Important Note

Attention mechanisms solve the **bottleneck problem** in vanilla seq2seq models.

Information

Modern transformers use **multi-head attention** for parallel processing.

Code Highlighting

Python Implementation

```
def attention(query, keys, values):
    # Calculate scores
    scores = torch.matmul(
        query, keys.transpose(-2, -1)
    )
    # Apply softmax
    weights = F.softmax(scores, dim=-1)
    # Weighted sum
    output = torch.matmul(weights, values)
    return output, weights
```

Key Points

- **Query** - what we're looking for
- **Keys** - what we compare against
- **Values** - what we aggregate
- **Weights** - attention distribution

Clean code presentation without distracting backgrounds

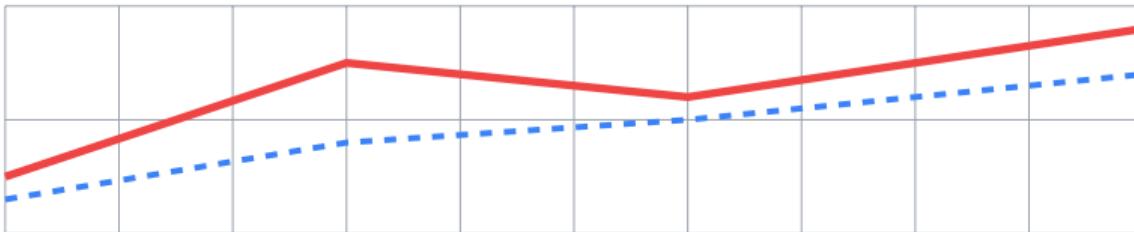
Data Visualization Style

Chart Guidelines

- Primary data in Warm Coral
- Comparison data in Info Blue
- Grid lines in light gray
- White background always
- Minimal borders (thin gray)

Visual Hierarchy

- ① Bold titles in Deep Ink Blue
- ② Key metrics highlighted
- ③ Annotations in gray
- ④ Improvements in green
- ⑤ Warnings in amber



Sample visualization with clean style

Comparison Layout

Traditional Approach

- Fixed context
- Information bottleneck
- Limited range

Performance: 78.5%

With Attention

- Dynamic context
- Direct connections
- Full sequence access

Performance: 92.3%

Transformer

- Parallel processing
- Multi-head attention
- Positional encoding

Performance: 95.7%

Clean three-column comparison without background distractions

Design Principles

Core Principles

- ① **No colored backgrounds** - pure white only
- ② **Strategic color use** - text and accents
- ③ Hierarchy through typography
- ④ Minimal borders and dividers
- ⑤ Clean, professional appearance

Benefits

- Maximum readability
- Reduced visual clutter
- Professional appearance
- Better printing
- Accessibility friendly

Clean · Professional · Effective