

## Original BERT

Input	[CLS]	my	dog	is	cute	[SEP]	he	likes	play	##ing	[SEP]
Segment Embeddings	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>B</sub>
	+	+	+	+	+	+	+	+	+	+	+
Token Embeddings	E <sub>[CLS]</sub>	E <sub>my</sub>	E <sub>dog</sub>	E <sub>is</sub>	E <sub>cute</sub>	E <sub>[SEP]</sub>	E <sub>he</sub>	E <sub>likes</sub>	E <sub>play</sub>	E <sub>##ing</sub>	E <sub>[SEP]</sub>
	+	+	+	+	+	+	+	+	+	+	+
Position Embeddings	E <sub>0</sub>	E <sub>1</sub>	E <sub>2</sub>	E <sub>3</sub>	E <sub>4</sub>	E <sub>5</sub>	E <sub>6</sub>	E <sub>7</sub>	E <sub>8</sub>	E <sub>9</sub>	E <sub>10</sub>

VS

## Bert for Summarization

Input	[CLS]	my	dog	is	cute	[SEP]	[CLS]	he	likes	play	##ing	[SEP]	[CLS]	sent3	[SEP]
Segment Embeddings	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>B</sub>	E <sub>A</sub>	E <sub>A</sub>	E <sub>A</sub>
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Token Embeddings	E <sub>[CLS]</sub>	E <sub>my</sub>	E <sub>dog</sub>	E <sub>is</sub>	E <sub>cute</sub>	E <sub>[SEP]</sub>	E <sub>[CLS]</sub>	E <sub>he</sub>	E <sub>likes</sub>	E <sub>play</sub>	E <sub>##ing</sub>	E <sub>[SEP]</sub>	E <sub>[CLS]</sub>	E <sub>sent3</sub>	E <sub>[SEP]</sub>
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Position Embeddings	E <sub>0</sub>	E <sub>1</sub>	E <sub>2</sub>	E <sub>3</sub>	E <sub>4</sub>	E <sub>5</sub>	E <sub>6</sub>	E <sub>6</sub>	E <sub>7</sub>	E <sub>8</sub>	E <sub>9</sub>	E <sub>10</sub>	E <sub>11</sub>	E <sub>12</sub>	E <sub>13</sub>