

```
<script>
```

```
document.write(Sigma("AAAAAASDAAAAAAAAAAAAA"));
```

```
function Sigma(s)
```

```
{
```

```
  var t = 0;
```

```
  var m = 0;
```

```
  for (var u=1; u<=(s.length - 1); u++)
```

```
  {
```

```
    for (var i=0; i<=(s.length-u); i++)
```

```
    {
```

```
      m += f(s.substr(i,1),s.substr(u+i,1));
```

```
    }
```

```
    t += (m / (s.length-u) * 100);
```

```
    m = 0;
```

```
  }
```

```
  return (100 - (t / (s.length - 1))).toFixed(2);
```

```
}
```

```
function f(x,y){
```

```
  if (x == y) {
```

```
    return 1;
```

```
  } else {
```

```
    return 0;
```

```
  }
```

```
}
```

```
</script>
```

$$s = \{x_1, \dots, x_{|s|}\}$$

$$\sigma(s) = 100 - \frac{\sum_{u=1}^{|s|-1} \left(\frac{\sum_{i=1}^{|s|-u} f(x_i, x_{u+i})}{(|s| - u) \times 100} \right)}{(|s| - 1)}$$

$$f(x_i, x_{u+i}) = \begin{cases} +1, & x_i = x_{u+i} \\ 0, & x_i \neq x_{u+i} \end{cases}$$

Self-Sequence Alignment Implementation vs model

Self-Sequence Alignment - Implementation vs model. The figure shows the connection between the equation and the JavaScript implementation. Note that each part of the equation shows a modular correspondence in the main implementation.



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