

Text before ...

```
vector<size_t> calculate_z_function(const string& s) {  
    vector<size_t> z(s.size());  
  
    size_t l = 0, r = 0;  
    for (size_t i = 1; i < z.size(); ++i) {  
        if (r > i) {  
            z[i] = min(r - i, z[i - l]);  
        }  
        while (i + z[i] < s.size() && s[i + z[i]] == s[z[i]]) {  
            ++z[i];  
        }  
        if (i + z[i] > r) {  
            l = i;  
            r = i + z[i];  
        }  
    }  
  
    return z;  
}
```

```
vector<size_t> calculate_z_function(const string& s) {  
    vector<size_t> z(s.size());  
}
```

Text after it ...