



Structural Language Models of Code

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Example - Java:

```
public static Path[] stat2Paths(FileStatus[] stats) {
    if (stats == null) return null;
    Path[] ret = new Path[stats.length];
    for (int i = 0; i < stats.length; ++i){</pre>
        ret[i] =
    return ret;
```

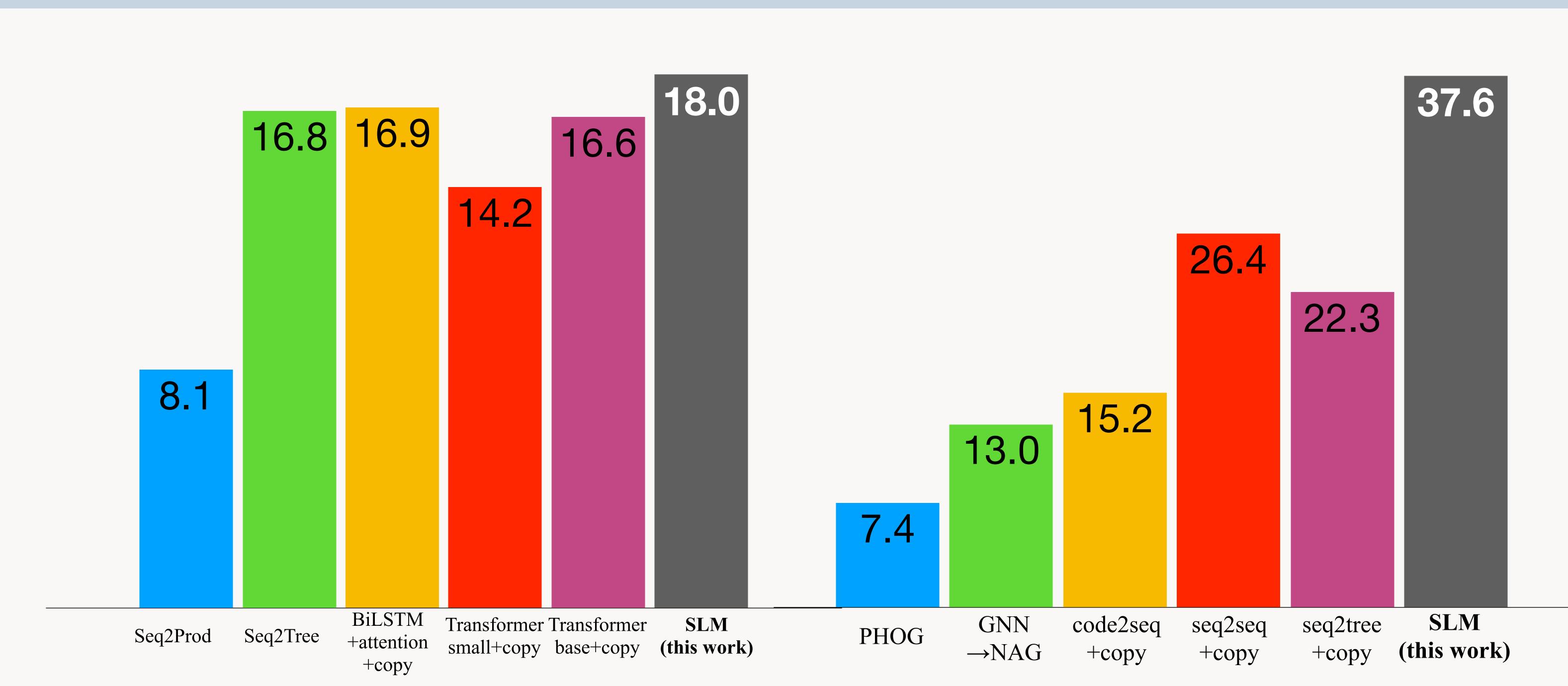
```
True ref (Java):
               stats[i].getPath()
       (25.2\%)
               stats[i].getPath()
        (3.3\%)
              Path(stats[i])
SLM
              new Path(stats[i], charset)
top-5:
               stat(stats[i], ret)
       (0.8\%) new Path(stats[i])
```

Example - C#:

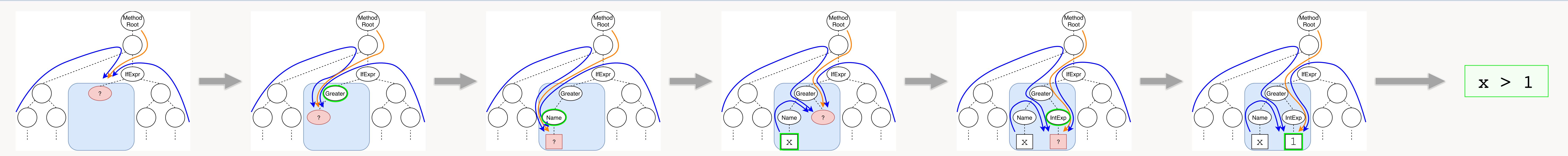
```
public static string Camelize(this string input)
    var word = input.Pascalize();
    return word.Length > 0
                              .ToLower()
        + word.Substring(1): word;
True ref (C#):
                word.Substring(0, 1)
```

```
word.Substring(0, 1)
       (8.2\%)
              word.trim()
SLM
              word.Substring(1)
top-5:
              input.Substring(0, 1)
       (1.9\%) wordValue.Substring(0, 1)
```

C# Results: (acc@1) Java Results: (acc@1)



How does it work? By generating the code as an Abstract Syntax Tree, node by node, given all incoming paths



Check out our interactive demo!

http://AnyCodeGen.org

