ANTLR Parser Generator

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a bit about myself...

Toolings
for
Programming

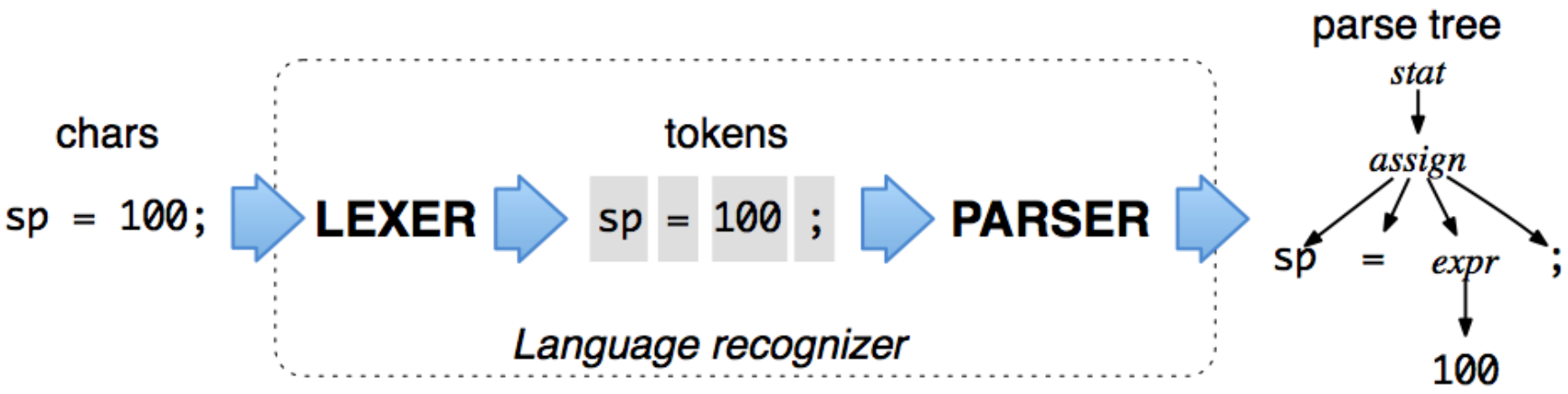
Programmer
Anthropologist
(Data Mining,
Interviews)

JSON

```
{
    "title":"Cat wrestling",
    "chapters":[ {"Intro":"..."}, ... ]
}
```

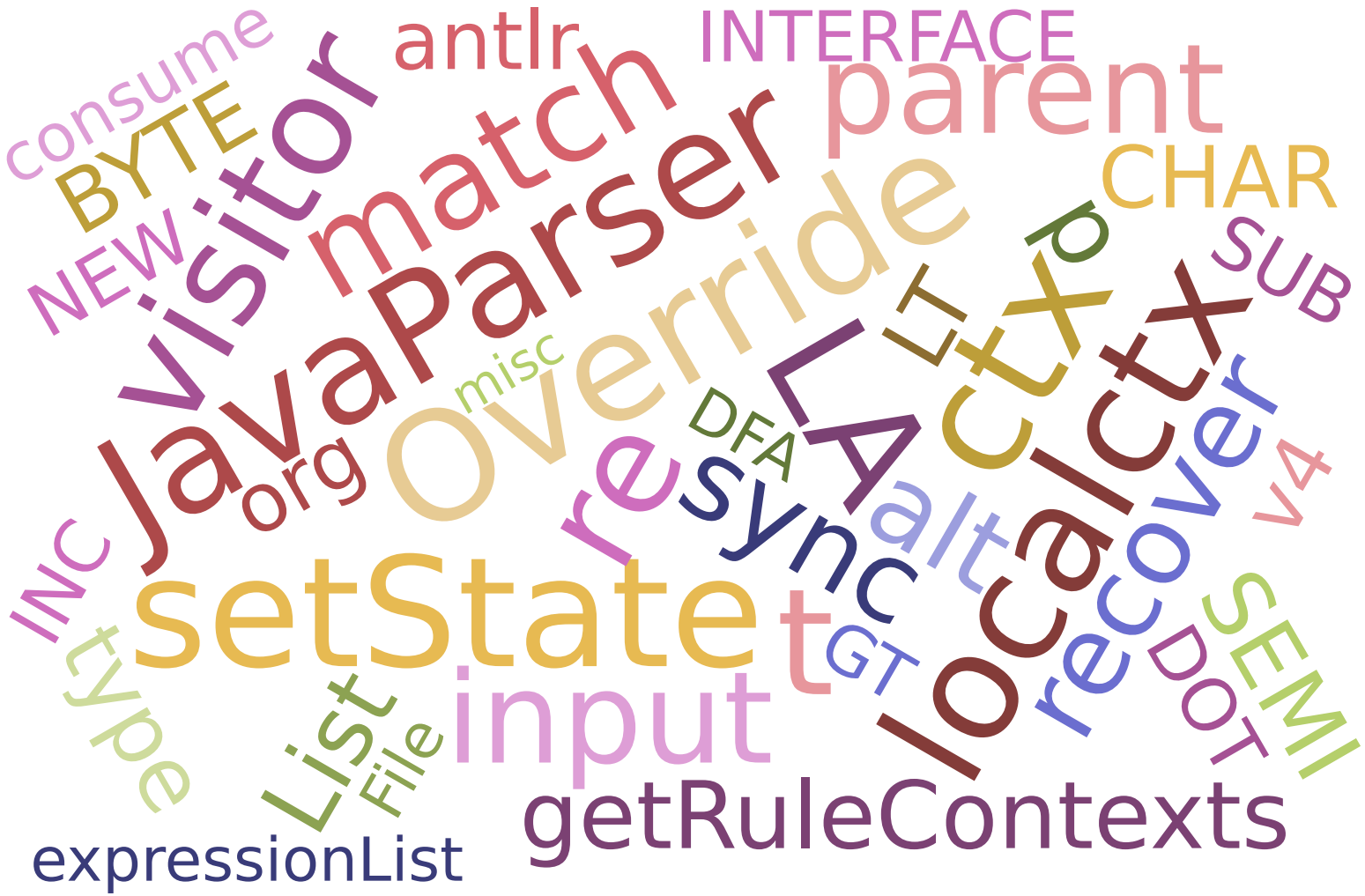
[The Definitive ANTLR 4 Reference]

10s on lexers and parsers



[https://theantlrguy.atlassian.net/wiki/display/ANTLR4/Parse+Tree+Listeners]

word-cloudify Java code



our plan

- extract the list of identifiers from the code
  - a 10 liner using ANTLR!
- feed the list to a word cloud generator

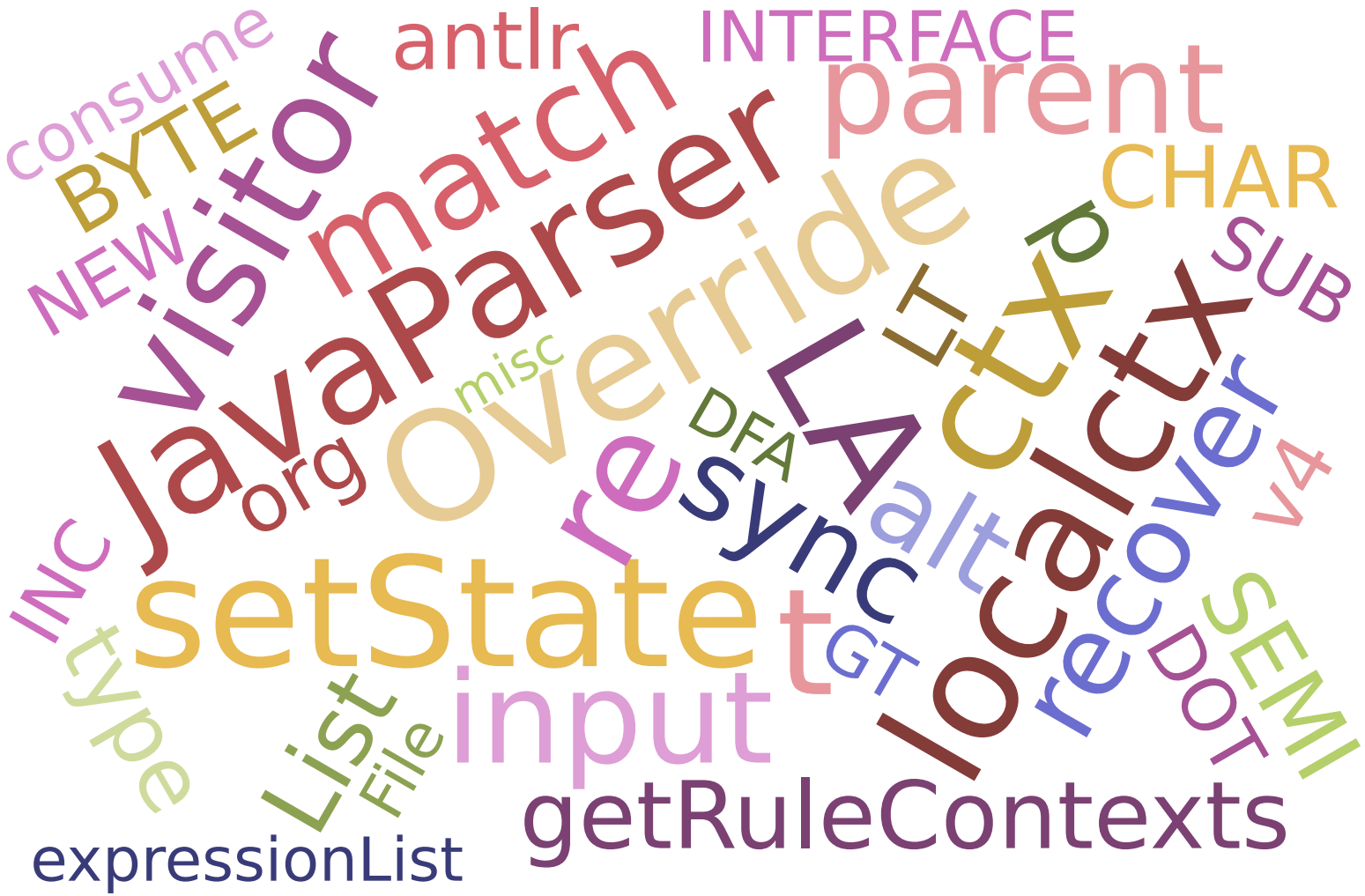
the 10-liner!

```
// Get the content of the fie
ANTLRFileStream in = new ANTLRFileStream(filename);

// Tokenize it
JavaLexer lexer = new JavaLexer(in);

// Print out the identifier tokens
for( Token t : lexer.getAllTokens() ) {
   if( t.getType() == JavaParser.Identifier ) {
    System.out.println(t.getText() + " ");
  }
}
```

id extractor + ANTLR generated code



extras: parse tree and visitor!

```
// Get the content of the fie
ANTLRFileStream in = new ANTLRFileStream(filename);

// Tokenizer it
JavaLexer lexer = new JavaLexer(in);

// Build a parse tree
CommonTokenStream tokens = new CommonTokenStream(lexer);
JavaParser parser = new JavaParser(tokens);
ParserRuleContext tree = parser.compilationUnit();


public class IdentifierListener extends JavaBaseListener {
  @Override
  public void enterMethodDeclaration(
      JavaParser.MethodDeclarationContext ctx) {
    System.out.println(ctx.Identifier());
  }
}
```

funny photo (thanks Monica!)

author of ANTLR: Terrance Parr