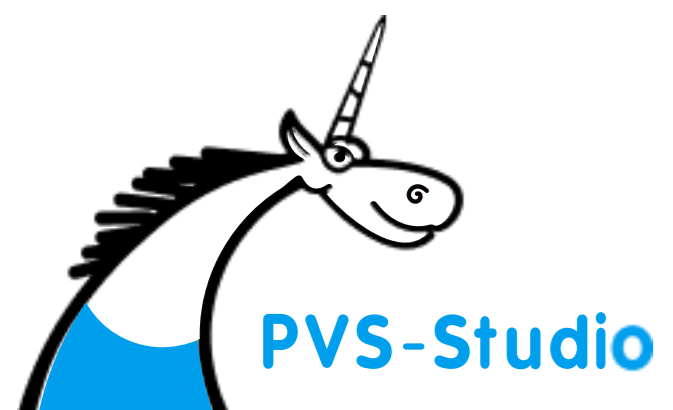


Expression parser

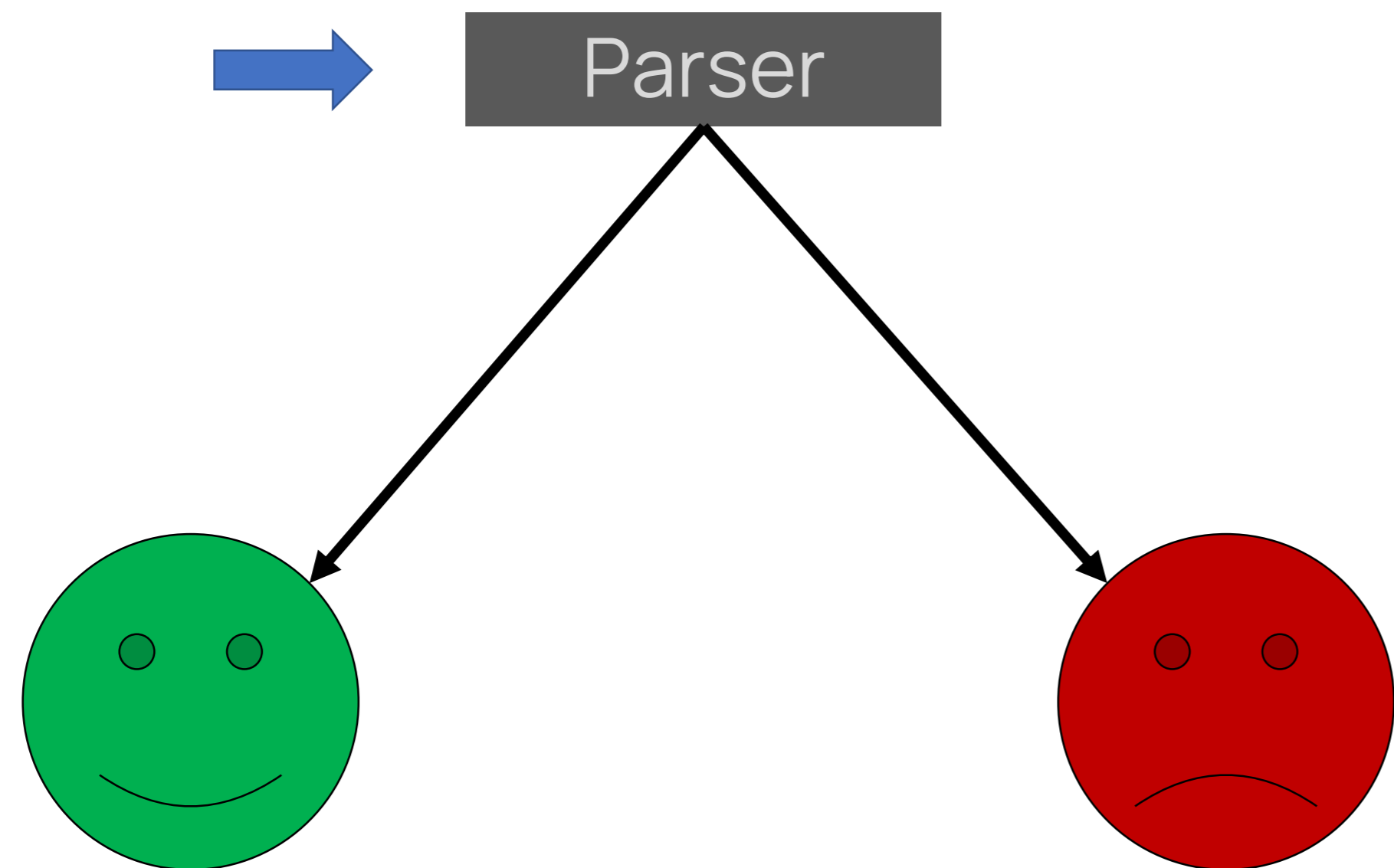


Yuri Minaev
Architect

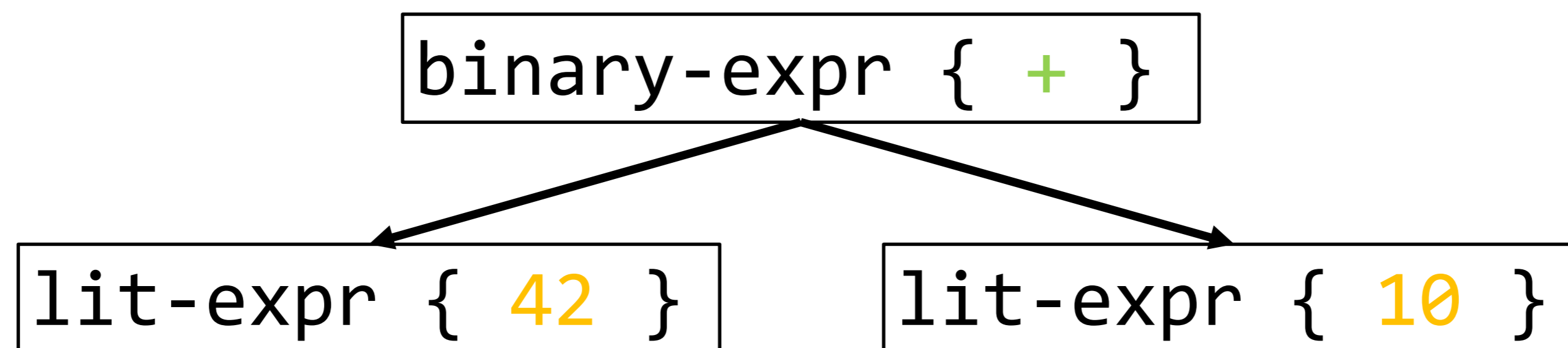


Intro

42 + 10



Intro



Grammar

Grammar

program:

 expr

expr:

 additive-expr

Grammar

```
program:
  expr
expr:
  additive-expr
additive-expr:
  multiplicative-expr
  additive-expr add-op multiplicative-expr
multiplicative-expr:
  unary-expr
  multiplicative-expr mul-op unary-expr
unary-expr:
  primary-expr
  unary-op unary-expr
```

Grammar

```

program:
  expr

expr:
  additive-expr
  multiplicative-expr
  additive-expr add-op multiplicative-expr
  unary-expr
  multiplicative-expr mul-op unary-expr

primary-expr:
  literal-expr
  paren-expr

paren-expr:
  ( expr )

literal-expr:
  number

additive-expr:
  multiplicative-expr
  additive-expr add-op multiplicative-expr

unary-expr:
  primary-expr
  unary-op unary-expr

```

Recursive descent

Recursive descent

42 + 10

Recursive descent

.42 + 10

program \rightarrow expr \rightarrow additive-expr \rightarrow multiplicative-expr
 \rightarrow unary-expr \rightarrow primary-expr \rightarrow literal-expr

Recursive descent

42 . + 10

program \rightarrow expr \rightarrow additive-expr \rightarrow multiplicative-expr
 \rightarrow unary-expr \rightarrow primary-expr \rightarrow literal-expr

Recursive descent

42 . + 10

program \rightarrow expr \rightarrow additive-expr

literal-expr { 42 }

Recursive descent

42 + .10

program \rightarrow expr \rightarrow additive-expr \rightarrow multiplicative-expr
 \rightarrow unary-expr \rightarrow primary-expr \rightarrow literal-expr

literal-expr { 42 }

Recursive descent

42 + 10.

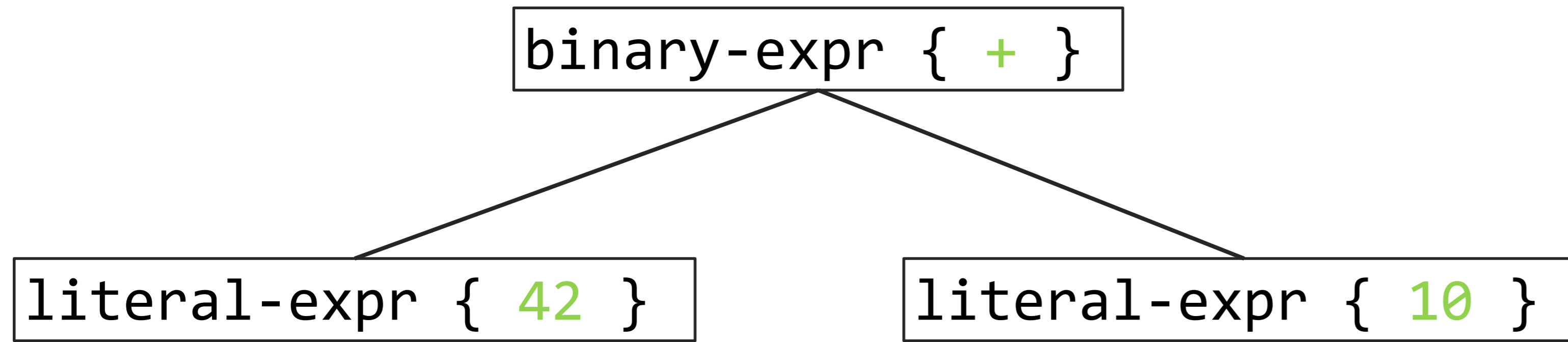
program \rightarrow expr \rightarrow additive-expr

literal-expr { 42 }

literal-expr { 10 }

Recursive descent

42 + 10.



Expression parser