



StarLasu: an open-source methodology for Parsers and Transpilers

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LangDev Meetup

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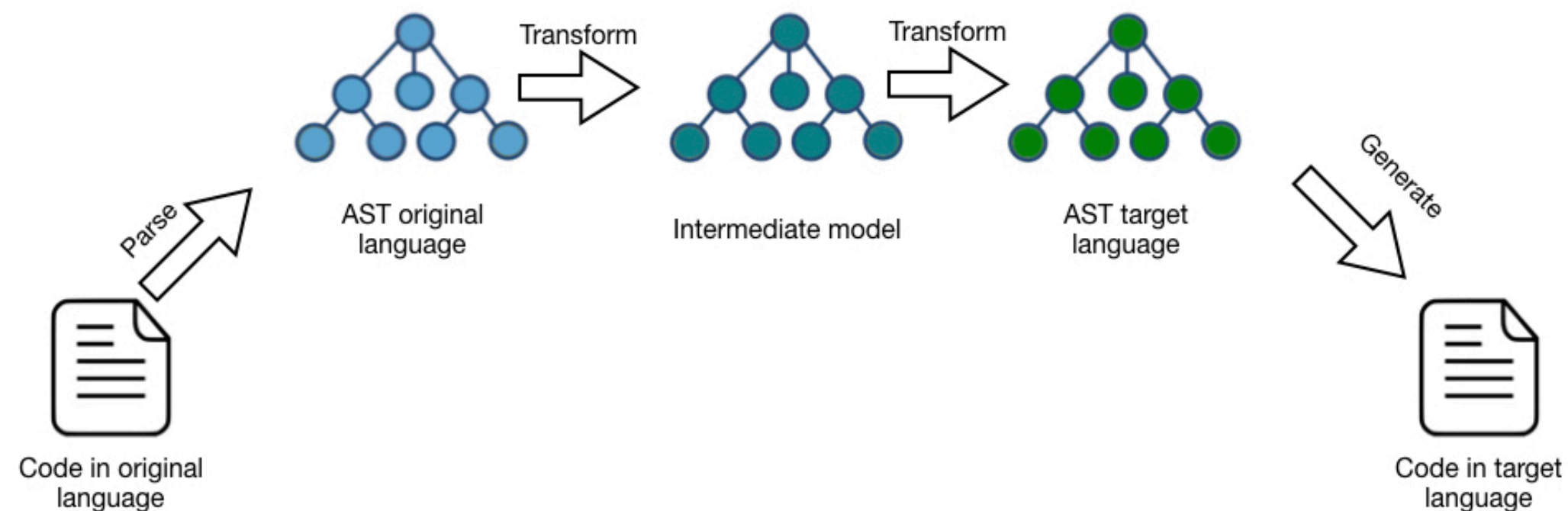


Context

Experience developing editors, transpilers, compilers, interpreters, static analysis tools

Language-Processing Pipelines

Abstract Syntax Tree + Queries + Transformations





Methodology promoting the development of language-processing tools as configurable pipelines through a collection of runtime libraries.

Abstract Syntax Trees built using StarLasu come with:

- Node-to-Text/Node-to-Node traceability support
- Generic API for AST queries, transformations, issue reporting and cross-referencing
- (Un)serialization support for language-independent pipeline composition

Kolasu (Kotlin, Java) - <https://github.com/Strumenta/kolasu>

Pylasu (Python) - <https://github.com/Strumenta/pylasu>

Tylasu (Typescript, Javascript) - <https://github.com/Strumenta/tylasu>

“ Demo

Entity Parser

- AST definition
- Parse tree to AST transformation
- Cross-references and symbol resolution
- JSON/EMF parsing result serialisation

Entity to Python Transpiler

- Entity To Python AST transformation



DEMO

<https://github.com/Strumenta/kolasu-entity-parser>

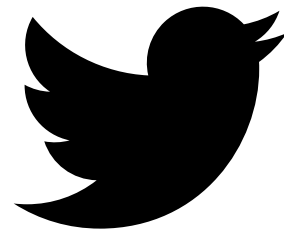
<https://github.com/Strumenta/kolasu-python-code-generator>

<https://github.com/Strumenta/kolasu-entity-to-python-transpiler>

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Questions?

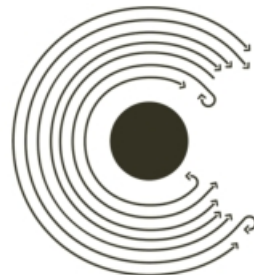
“ Thank You!



<https://twitter.com/strumenta>

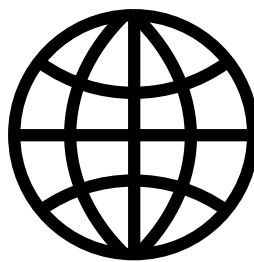


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