Emerging
Languages

Symbiotic
Languages

ryah — 7 hours

Creating a language is foolish at this point unless you've got a team of 3 to 20 qualified people for a couple years. VMs are too hard.

Strong VMs

Transpiled

List of languages that compile to JS

CoffeeScript Family (& Friends)

- CoffeeScript Unfancy JavaScript

Family (share genes with CoffeeScript)

- Coco A CoffeeScript dialect that aims to be more radical and practical, also acts as a test bed for features that get imported in CoffeeScript.

    - LiveScript is a fork of Coco that is much more compatible with CoffeeScript, more functional, and with more features.
- IcedCoffeeScript A CoffeeScript dialect that adds support for `await` and `defer` keywords which simplify async control flow.
- Parsec CoffeeScript CS based on parser combinators. The project's aim is to add static metaprogramming (i.e. macros + syntax extensibility) to Coffee Script (CS), similar to how Metalua adds such features to Lua. The resulting compiler, once merged with the official compiler, should be usable as a drop-in replacement for it.
- Contracts.coffee A dialect of CoffeeScript that adds built-in support for contracts.
- Uberscript, a CoffeeScript fork that adds type annotations which are compiled to Google closure compiler type annotation comments.
- ToffeeScript A dialect of CoffeeScript that support Asynchronous Syntax, Symbol and Regexp operator =~
- Caffeine A dialect of CoffeeScript that support packages and classes import, useful for browser applications
- heap.coffee A dialect of CoffeeScript that offers a C-like type system with manual memory management

Friends (philosophically related)

- JS11 JavaScript with augmented semicolon insertion, reduced punctuation, and limited sugar. Debugs line-for-line.
- Kaffeine Enhanced Syntax for JavaScript.
- Jack Making programming playful.
- move A simpler and cleaner programming language.
- Moescript Indent-based language
- pogoscript language that emphasises readability, is friendly to domain specific languages and compiles to regular JavaScript
- LispyScript A JavaScript with Lispy syntax and Macros.
- Sibilant JavaScript with a lisp.

JavaScript Extensions

Security enforcing JavaScript

- Caja Compiles ES5/strict to ES3 and supports object-capabilities
- ADsafe Client-side static verifier and API, making third party scripts safe.
- FBJS Facebook JavaScript, used for scripting FBML (Facebook Markup Language) gadgets.
- Jacaranda Static verifier supporting object-capabilities.
- Microsoft Web Sandbox Technology preview of securing web content through isolation.
- Gatekeeper Microsoft Research project.
- Dojo Secure Framework for building secure mashups.

Static typing

- Some of the ones listed below are also statically typed, such as mobl, GWT, JSIL, NS Basic, and Haxe.

CoffeeScript

"It's **Just** JavaScript"

Popularity Rank on Stack Overflow (by # of Tags)

80

60

40

20

C#
Java
PHP
JavaScript
C++
Python
Objective-C
C
Perl
Ruby
Visual Basic
Shell
Delphi
R
Matlab
Scala
Haskell
PowerShell
Assembly
ActionScript
ASP
Groovy
ColdFusion
F#
Clojure
Io
Lua
Erlang
CoffeeScript
Prolog
Scheme
AppleScript
FORTRAN
Emacs Lisp
Go
OCaml
Tcl
Arduino
XQuery
D
Racket
Apex
VHDL
Smalltalk
Verilog
Ada
Self
Standard ML
AutoHotkey
Dart
Rebol
HaXe
Puppet
Vala
Opa
Factor
OpenEdge ABL
Boo
Coq
Elixir
Objective-J
Scilab
Max
Nemerle
Eiffel
DCPU-16 ASM
Rust
Parrot
Turing
Arc
Kotlin
Mirah
SuperCollider
Ceylon
Dylan
Julia
Fantom
Gosu
Ioke
Bro
Augeas
Nu
Fancy
Common Lisp
Logtalk
Nimrod
eC
ooc
Pure Data
VimL

Preserve/**Deviate**

Negative Array Indexes

Everything
is an
Expression

Classes

Bound Functions

Scoping

The **Politics** of Programming Languages

CoffeeScript as
Case Study

```javascript
Scope.prototype.find = function(name, options) {
  if (this.check(name, options)) {
    return true;
  }
  this.add(name, 'var');
  return false;
};
```

Code as **Language**

Code has a
Dual Audience

Other **Transpilers** Worth Pursuing

});