

CSE 6305: Programming Languages and Systems

Incomplete List of Projects

PHP

HipHop Virtual Machine (HHVM)
Zend Virtual Machine
JPHP
Improving memory management of PHP

Python

Improving memory manager of CPython
PyPy
Jython

Web and JavaScript

Chrome V8
Mozilla's SpiderMonkey
Safari's WebKit
Microsoft Edge's Chakra
WebAssembly

Compiler

Scala Native, an optimizing ahead-of-time compiler for Scala
Just in Time Compilation in JVMs
Adaptive optimization in JVMs

Concurrency

Concurrency study of Python
Concurrency study of JavaScript
Concurrency study of Rust
Concurrency study of Scala

Tools

Maxine VM
GraalVM
Jikes RVM
Low Level Virtual Machine (LLVM)

Memory Management

Modern Concurrent Garbage Collectors
Modern High-Performance Memory Allocators
Hardware Garbage Collectors
Modern Garbage Collectors for Big Data Systems