

GoLightly

high-performance application virtualisation in Go

Eleanor McHugh

<http://golightly.games-with-brains.net/>

go

a systems language by google

productivity, performance, concurrency

lighter than Java, safer than C

virtualisation

design machines to suit particular problems

implement these machines in software

compile programs to run on these machines

inspiration

modern processor architectures

concurrent control systems

FPGAs

perspiration

iterative empirical method

explore - implement - test - benchmark

evolve towards elegance

features

type-driven decoupled instructions

runtime configurable instruction dispatch

code mobility

vector and stream operations

benefits

efficient use of resources

leverage multicore

scale to multiple hosts

serialise & duplicate runtime state

artefacts

open-source library

example virtual machines

high-level language runtimes

a view to the future

speculative loading

runtime code rewriting and optimisation

JIT compilation

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