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# WHAT IS JULIA?

# JULIA

- A high-level, high-performance dynamic programming language for numerical computing
- Multi-paradigm language (combines features of imperative, functional and object-oriented programming)
- Mostly written in Julia itself!
- Optional typing (type inference)
- Multiple dispatch
- just-in-time (JIT) compilation (LLVM)
- The performance approaches that of statically-compiled languages like C
- Lisp-like macros and other metaprogramming features
- Call C-functions directly (no wrapper or special API)

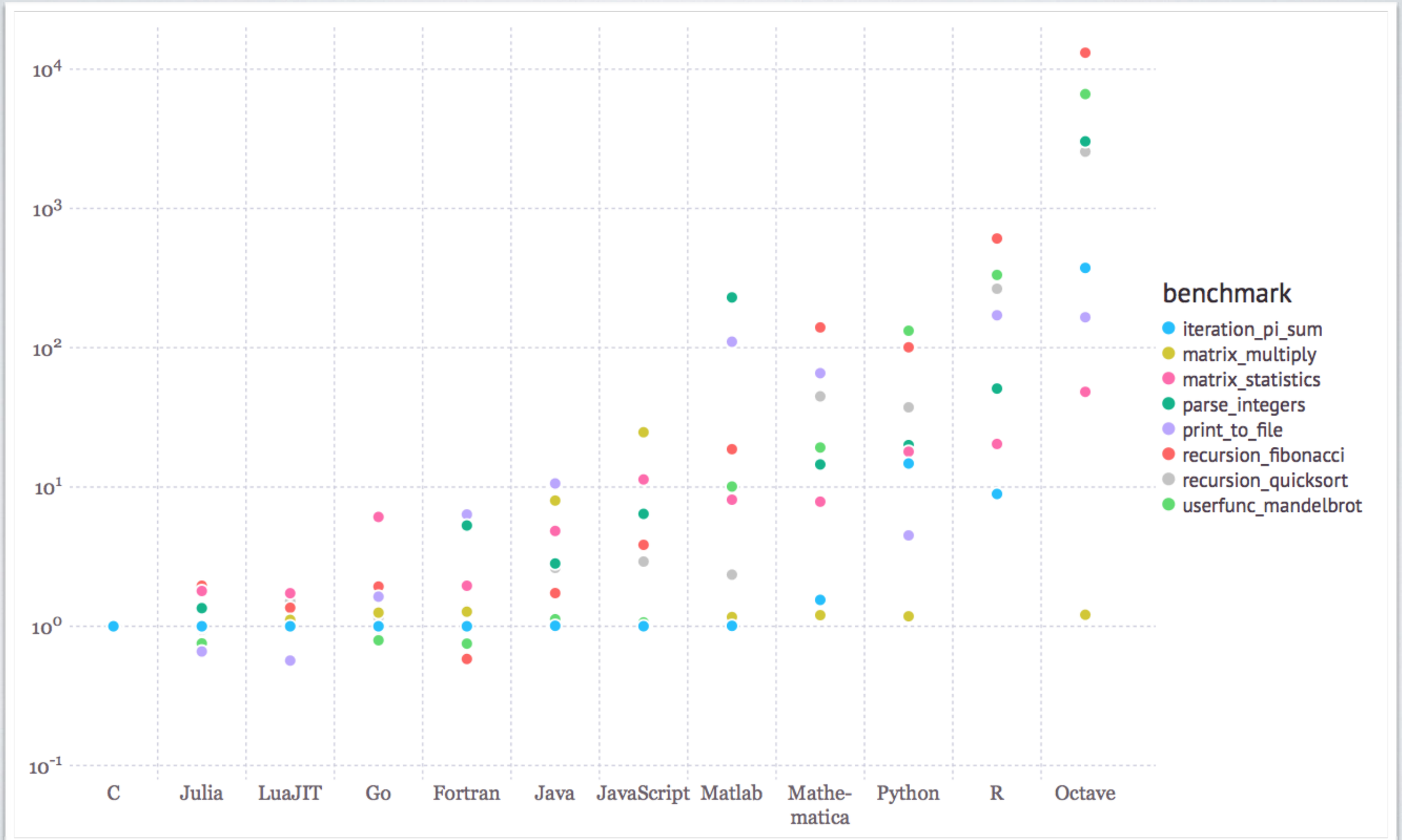
# WHY JULIA?

- You often write your own algorithms
- You want to write prototype code,
  which is usually as fast as optimised code
- You want to learn something different
- You want zero overhead calls to
  e.g. C and Python
- You love working in Jupyter
  (the **Ju** stands for **Ju**lia)

# WHY NOT JULIA?

- You heavily rely on third party libraries
- You don't have the time to keep up with language changes (Julia is still not 1.0)

# SOME BENCHMARKS



# LIVE DEMO

## juliabox.com

log in with your GitHub account and start hacking!

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