#### **Beautiful IO**

A tour through standard library pkg/io and various implementations of its interfaces.

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Martin Czygan

#### **About me**

SWE @ubleipzig working mostly with Python and Go.

Taming data – open source – writing – consulting.

Explore IO workshop at Golab 2017.

# The IO package

- contains basic, widely used interfaces (within and outside standard library)
- simple, flexible helpers

# Why beautiful?

La bellezza è negli occhi di chi guarda

- small, versatile interfaces
- composable

### **Love and praise**

This article aims to convince you to use io.Reader in your own code wherever you can. -- @matryer

"Crossing Streams: a love letter to Go io.Reader" -- @jmoiron

Which brings me to io.Reader, easily my favourite Go interface. -- @davecheney

## What's in pkg/io?

- 25 types of which 21 are interfaces, 7 functions, 3 constants, 6 errors
- Four concrete types are: LimitedReader, PipeReader, PipeWriter, SectionReader.
- Functions: Copy\*, Pipe, ReadAtLeast, ReadFull, WriteString.

# How many readers, writers are in the standard library?

• TODO: count

## How do you implement them?

```
type Reader interface {
    Read(p []byte) (n int, err error)
}
```

```
type Writer interface {
    Write(p []byte) (n int, err error)
}
```