## **Having fun with Scheme**

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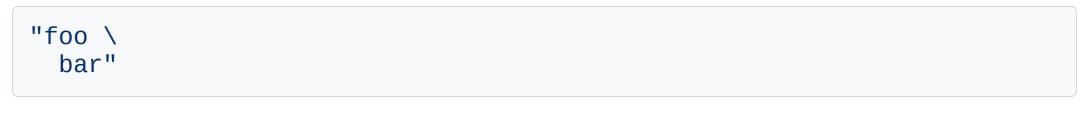
## Schemat

- Scheme code formatter
- Written in Rust unfortunately...
- Uses the same <code>mfmt</code> formatter library as Pen.
- Rust allocator API + bumpalo crate

### **Schemat**

Some features are not supported yet.

- Range comments
  - #| This is a comment. |#
- Multi-line strings





# **Implementing Scheme in Rust**

- VM is mostly done.
  - Written in Rust
  - $\circ\,$  The core logic is around 700 lines.
    - Mostly re-implementation of Ribbit
  - $\circ~$  No-std and no-alloc
  - $\circ\,$  Can be used as a library.
  - Copy GC
- Bytecode compiler
  - Written in Scheme
  - Global variable get/set
- But write codes in Scheme as much as possible.

## Next tasks...

- Scheme in Rust
  - $\circ\,$  More language features in the bytecode compiler
    - Closures
    - Slot variables
- Pen
  - $\circ$  sort and reverse functions
  - $\circ\,$  Syntax extension for list pattern matching
  - $\circ$  Compiler improvements

## **Summary**

• Building a VM is fun (again.)