

Ferrifuzz Cheat Sheet

01 · Getting Started with Python.
import ferrifuzz as ff

01

Install

pip install ferrifuzz
pip install "ferrifuzz[plot]" # + numpy, matplotlib
Python 3.9+ · prebuilt wheels · no Rust needed

02

Variables & Terms

temp = ff.Variable("temp", 0, 40)
temp["warm"] = ff.mf.triangle(10, 20, 30)
temp.fuzzify(25) # {'warm': 0.5, ...}
ff.Variable("err", -1, 1).automf(5) # 5 terms

03

Build a System

system = ff.FuzzySystem()
system.add_input(temp); system.add_output(fan)
system += "IF temp IS hot THEN fan IS fast"
system.add_rules([...]) # list of strings

04

Run

system({"temp": 25.0}) # {'fan': 59.88...}
system.evaluate([25.0]) # positional, fastest
system.compute_batch({"temp": arr}) # vectorized

05

Debug

assert system.validate() == []
system.rule_strengths({"temp": 25})
ff.InputError · ff.ModelError · ff.RuleSyntaxError
(all ff.FuzzyError → ValueError) · no rule fired → nan

Next → 02 Rule Syntax
parsabordbar.github.io/ferrifuzz_docs