

LOCAL SEARCH FOR RESTFUL APIS

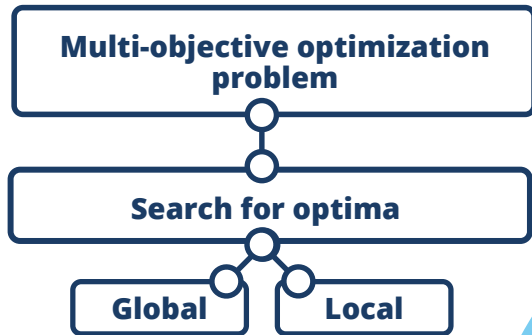
Multi-Objective Hill Climbing for Automated RESTful API Test Case Generation

Jeroen Kappé
Supervisor: Annibale Panichella

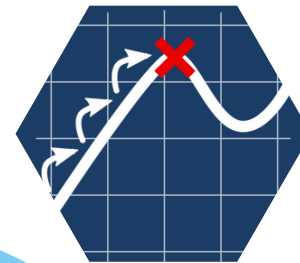
Course: CS3000 

EvoMaster

Automatically test RESTful APIs



Local search



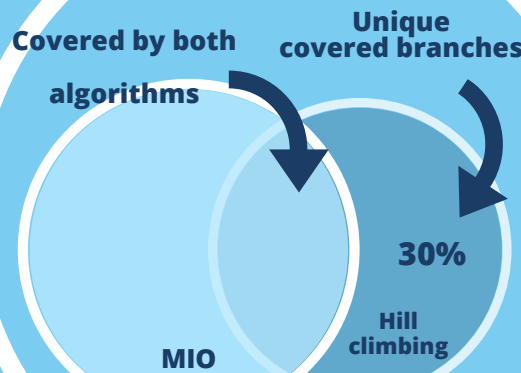
Originally for integers

Extension for types in HTTP message

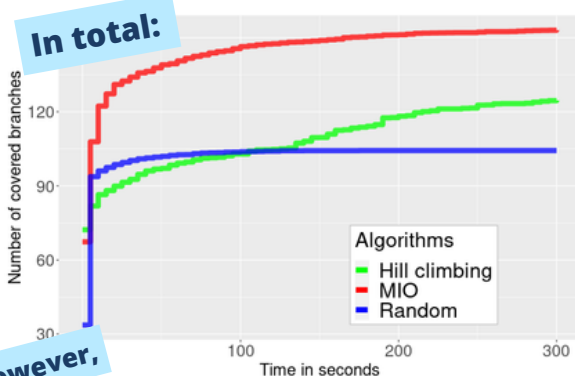
Booleans,
Enumerators,
Floating-point numbers,
Arrays,
Objects

Use AVM,
since 1990!

Branch coverage



Results



Is able to cover some branches better than MIO

Better on
~30%
of the search space!

Future

A stand-alone hill climbing approach was not superior

A combination might yield to even greater results

