

Design Space Exploration

Tutorial @PLDI

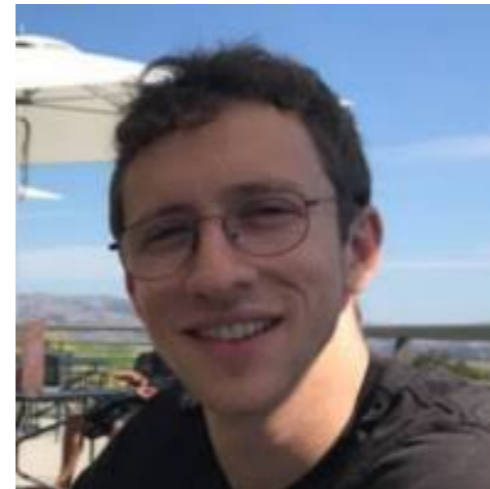
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Program

Website: <https://pldi20.sigplan.org/details/pldi-2020-tutorials/1/Design-Space-Exploration>

Slack **PLDI2020**, channel **dse-tutorial**

Youtube: <https://youtu.be/0S-y7uCY93Q>

Program

Total duration: 3 hours. **Time is in PDT.**

Time	Topic	Speaker	Duration	Slides
8:00	Introduction	Luigi Nardi	10 min	link
8:10	Design Space Exploration	Luigi Nardi	30 min	link
8:40	Hands-on: HyperMapper Demo	Artur Souza	25 min	link
9:05	Break		10 min	
9:15	The Spatial programming language and compiler	Matt Feldman	30 min	link
9:45	Hands-on: Spatial Demo	Artur Souza & Matt Feldman	30 min	Matt / Artur
10:15	Break		10 min	
10:25	DSE advanced topics	Artur Souza	30 min	link
10:55	Discussions/panel - Q&A	All speakers	Flexible	

Today's Objective

Be able to use a plug-and-play DSE tool in your toolchain

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Be able to use a plug-and-play DSE tool in your toolchain

luinardi / hypermapper

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Black-box Optimizer based on Bayesian Optimization

7 commits 1 branch 0 packages 0 releases 2 contributors MIT

Branch: master New pull request Find file Clone or download

File	Commit Message	Time
example_outputs	HyperMapper Release.	6 months ago
example_scenarios	Updated demo with more examples.	5 months ago
scripts	Fixed issue with unordered configurations.	20 days ago
tests	HyperMapper Release.	6 months ago
.gitignore	Removed .idea and added .gitignore. Fixes #1	27 days ago
.travis.yml	HyperMapper Release.	6 months ago
LICENSE	HyperMapper Release.	6 months ago
README.md	Update README.md	8 hours ago

Getting Started

- Quick Start Guide
- Jupyter Notebook Demo

Overview

- Home
- Install HyperMapper
- Input Parameter Types
- Design of Experiment

Focus on Portion of the Pareto

- Bounding the Multi-objective Branin Function

Client-Server Mode

- Client-Server Branin
- Client-Server Chakong-Haimes

Use Cases

- The Spatial Use Case

Other

HyperMapper quick start guide

Spatial quick start guide