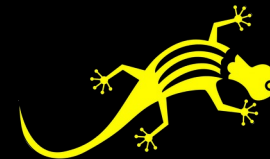




Maia Cloud Lab



MaiaScript

High-Performance Programming with MaiaScript and WebAssembly

by

Roberto Luiz Souza Monteiro



M.A.I.A.



MaiaScript



MaiaStudio



MaiaRecorder



Meet



LearningBLockly



Why yet another programming language?

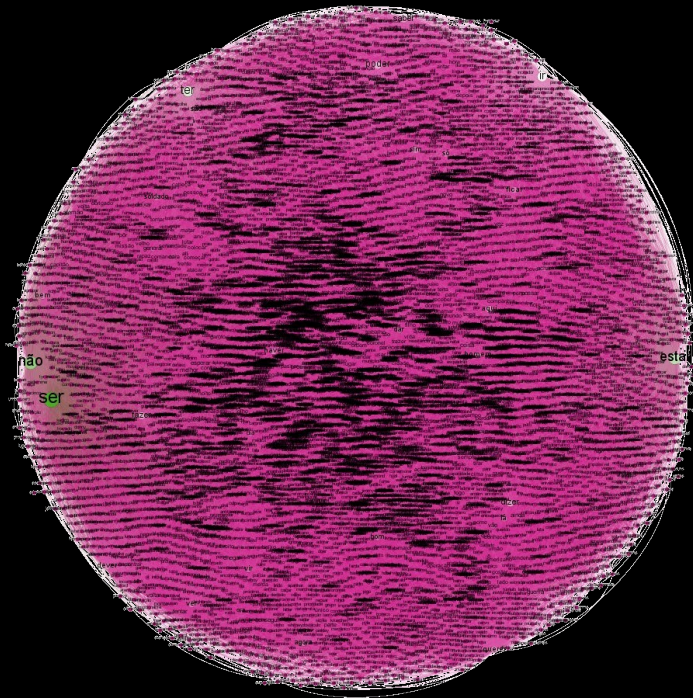
- We want to develop a meta-cognitive engine. An artificial intelligence capable of learning how to learn.
 - We created MaiaScript to make this task easier and more efficient.



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M.A.I.A. - Maia Artificial Intelligence Autogenous

- First prototype:



ma-tzi-li





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MaiaScript

- Object-oriented, cross-platform, high-performance programming language.
- Main libraries:
 - ANN;
 - CAS;
 - CNA;
 - Core;
 - DFA;
 - MaiaCompiler;
 - MaiaGPU;
 - MaiaString;
 - MaiaVM;
 - Mathematics;
 - Matrix;
 - SNET;
 - Statistics;
 - System;
 - Task.





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MaiaStudio

- IDE (Integrated Development Environment) developed to allow the construction of programs in MaiaScript on the web. The program is composed of:
 - MaiaEditor;
 - MaiaConsole;
 - MaiaCompiler ;
 - MaiaVM (MaiaScript Virtual Machine).

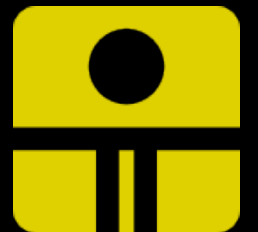




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MaiaRecorder

- Screen recorder for producing classes in screencast mode.
- Developed to be the MaiaMeet conference recorder.





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MaiaMeet

- Videoconferencing manager developed to carry out remote work for the Maia group.
- Based on Jitsi Meet and uses Jitsi Videobridge, a server program compatible with WebRTC and MaiaRecorder, a screen recorder implemented using Media Capture and Streams API technology.





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LearningBlockly

- LearningBlockly is a block-based programming learning environment.
- Built to teach programming in MaiaScript.





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MaiaScript architecture.

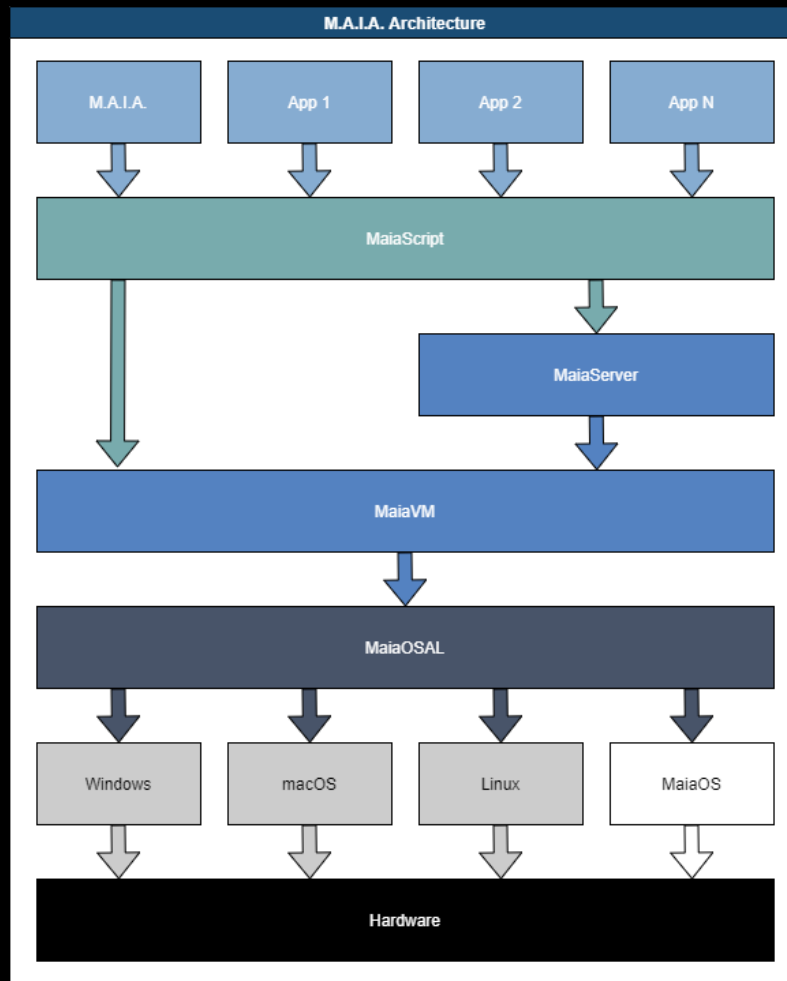
Applications

Virtual machine

Hardware abstraction

Operating system (OS)

Hardware independence



Programming language

Application server





Maia Cloud Lab

Cronograma

2020		2021		2022
MaiaScript	✓	MaiaRecorder	✓	MaiaServer
MaiaStudio	✓	MaiaMeet	✓	M.A.I.A.
LearningBlocly	✓	MaiaHPC	✓	
CNATool	✓	Lyza (MaiaRobot)		

