

# The Goals of the Luau Type System

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A position paper about the goals Luau type system.

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## 1 INTRODUCTION

The Roblox [4] platform allows anyone to create shared, immersive, 3D experiences. At the time of writing, there are approximately eight million experiences available on Roblox, created by eight million developers. Roblox developers are often young, for example there are over 200 Roblox coding camps in over 65 countries listed at [3].

The Luau programming language [2] is the scripting language used by developers of Roblox experiences. Luau is derived from the Lua programming language [1], with additional capabilities, including a type inference engine.

This paper will discuss some of the goals of the Luau type system, and why those goals are slightly different from other type systems.

## 2 INFALLIBLE TYPES

## 3 STRICT TYPES

## 4 NONSTRICT TYPES

## 5 CONCLUSIONS

## REFERENCES

- [1] Lua.org and PUC-Rio. 2021. The Lua Programming Language. <https://lua.org>
- [2] Roblox. 2021. The Luau Programming Language. <https://luau-lang.org>
- [3] Roblox. 2021. Roblox Education: All Educators. <https://education.roblox.com/en-us/educators>
- [4] Roblox. 2021. What is Roblox. <https://corp.roblox.com>

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