ariel weiss

email cv discord github bluesky keybase

hi, i'm ariel (she/her) from the luau team! i work as a software engineer and tech lead at roblox where my efforts are primarily focused on the design of and developer experience with luau's type system & ecosystem. its gradual type system is really quite fun, featuring powerful features like semantic subtyping, typestate, and partial type operators.

outside of work, i'm a fromsoft fanatic, a frequent magic the gathering player, a chronic savage raider in the critically-acclaimed mmorpg final fantasy xiv, and a lover of dungeons & dragons, lancer & other ttrpgs. in music, i'm a jazz and hyperpop appreciator, especially samara joy & chet baker, and jamie paige & brakence & underscores.

in other media, i adore classic cinema! some of my favorite films include mulholland dr. (2001) & nora inu (1949) & taxi driver (1976) & à bout de souffle (1960) & in the mood for love (2000). in television, i love to watch crime dramas, especially the sopranos & breaking bad, and sci-fi anime like ghost in the shell & witch from mercury & neon genesis evangelion.

in my past life, i was an academic. i was a phd student & nsf fellow at northeastern working on a formal semantics for rust with amal ahmed. as an undergraduate, i worked with arjun guha on static verification and program repair for puppet manifests.

projects

lute [cpp]

lute is a standalone luau runtime for general-purpose programming, aiming to enable developers to use luau for writing developer tooling and application code.

luau [cpp]

luau (lowercase *u*, /ˈlu.aʊ/) is a fast, small, safe, gradually typed embeddable scripting language derived from lua. it is used as the official language for development on roblox.

theraphosa [ocaml]

theraphosa is a fully client-side, web-based environment for a small python-inspired functional programming language featuring a simple web ide with a compiler to wasm.

diet coke [scala]

diet coke is a simple functional language inspired by koka with a type-and-effect system featuring row-polymorphic effects and hindley-milner type inference.

the irc crate [rust]

the irc crate is an asynchonous & usability-focused client library for the irc protocol. it aims to be compliant with rfc2812, ircv3, and popular ircds in use today.

publications

Oxide: The Essence of Rust
Ariel Weiss, Olek Gierczak, Daniel Patterson, Amal Ahmed.
On *arXiv*, October 2021. **Awarded First Place in POPL '19 SRC.**
Extended Abstract (POPL '19 SRC) Poster (Jan. 2019) Slides (June 2020)
Slides (Jan. 2019) Code

Rust Distilled: An Expressive Tower of Languages
Ariel Weiss, Daniel Patterson, Amal Ahmed.
In *ML Family Workshop (ML '18)*, St. Louis, Missouri, USA, September 2018.
Talk Slides

Tortoise: Interactive System Configuration Repair
Ariel Weiss, Arjun Guha, Yuriy Brun.
In *Proceedings of the 32nd IEEE/ACM International Conference on Automated Software*