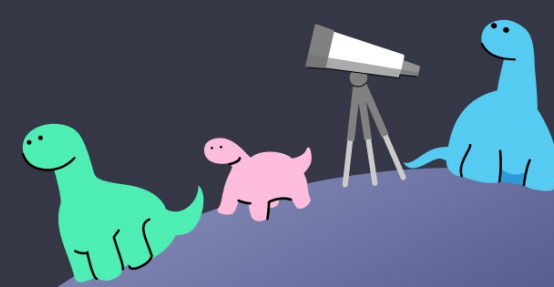




SEQUOIA 



# Deno raises \$21M

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The Deno company has raised \$21M in an investment round led by Sequoia Capital with participation from Nat Friedman, Four Rivers Ventures, Insight Partners, Long Journey Ventures, Dylan Field, Automattic, Netlify, and Shasta Ventures.

Developers today struggle with endless complexity in building web services. There is a jungle of tooling that must be well understood and delicately combined. There are thousands of megabytes of dependencies, many of which are unnecessary, insecure, and out-of-date. Long running builds are undertaken on every code change. Cloud services are either too limited (supporting only static content) or way too complicated (requiring irrelevant configuration relative to the application problem). Why can't engineers just focus on the problem at hand, rather than all of these tangential issues?

JavaScript is unlike other programming languages in that it is the universal scripting language. Its universality combined with security from the browser and its raw performance lends itself to a solution for these problems, at least for a certain common class of applications.

Deno is JavaScript for the serverless era. Our earlier project, Node.js, has shown how useful JavaScript outside of the browser can be: *nearly every website* uses Node in some form or another. Deno refines and extends this idea. The open source Deno runtime shows how clean and productive a modern, batteries-included, programming environment can be. It has quickly grown to one of the top projects on Github (#44 in stars at time of writing). Tens of thousands of users utilize the runtime every week. The Deno software stack was built for more than simply improving local development and system APIs. We also use it to build the most modern, user-friendly, serverless-at-edge system: Deno Deploy.

Deno Deploy is an Isolate Cloud. Early in cloud computing, virtual machines were the compute abstraction; completely general purpose, they could emulate any system. Later Docker popularized the idea of Linux Containers, allowing lighter-weight isolation packages. Linux Containers shared the kernel with the host machine, achieving faster package builds and faster startup times. An Isolate Cloud is similarly a compute abstraction but using the most minimal package possible: only the application code. Not only the kernel but also the runtime environment is provided by the host machine. This is what allows Deno Deploy to achieve its cutting-edge deployment times, instant cold starts, and surprising scale.

	Isolate Cloud	Container Cloud	Traditional VM Cloud
<b>Supported OS</b>	N/A	Linux	Any
<b>Programming interface</b>	JS, Wasm	Linux syscalls	Arbitrary amd64
<b>Implementations</b>	Deno Deploy	Kubernetes	EC2
<b>Cold start (time to first response, ms)</b>	O(100)	O(1000)	O(10000)
<b>Package Size (MB)</b>	O(10)	O(100)	O(1000)
<b>Instances per physical machine</b>	O(1000)	O(100)	O(10)
<b>Isolation</b>	process	container	hardware
<b>Ideal use case</b>	Web services	Go, Rust, C programs	Low-level systems, emulating archaic OSes
<b>Price</b>	\$	\$\$	\$\$\$

The density possible with an Isolate Cloud allows Deno Deploy to do amazing things. For example, it is integrated with GitHub in such a way that on every push it will provision a new server running specifically that code, deployed to the edge, worldwide, and persisted permanently. Want to access the code your app was running a month ago at commit `f7c5e19`? It will be served up instantly at a moment's notice. It costs you nothing to have that bit of JavaScript responding to requests indefinitely.

Most users of Deploy are self-serve customers, but through Deno Deploy Subhosting we can support even larger use-cases. For example, Netlify is partnering with Deno to provide Netlify Edge Functions. Netlify's Edge Functions run on Deno Deploy. Similarly Supabase Edge Functions are also built on Deno Deploy.

This new round of investment will allow us to have the highest quality engineers working on Deno for years to come. We will make sure this infrastructure is reliable for companies small and large. The Isolate Cloud technology has clear commercial applications – we do not want to be timid about pursuing them – thus we will use this investment to hire on the business side of the Deno company.

Try Deno Deploy - you will be surprised at the speed and simplicity.