

SUCCESS STORY

UC Santa Cruz Genomics Institute Teaches Docker to the Global Science Community with Interactive Virtual Workshops



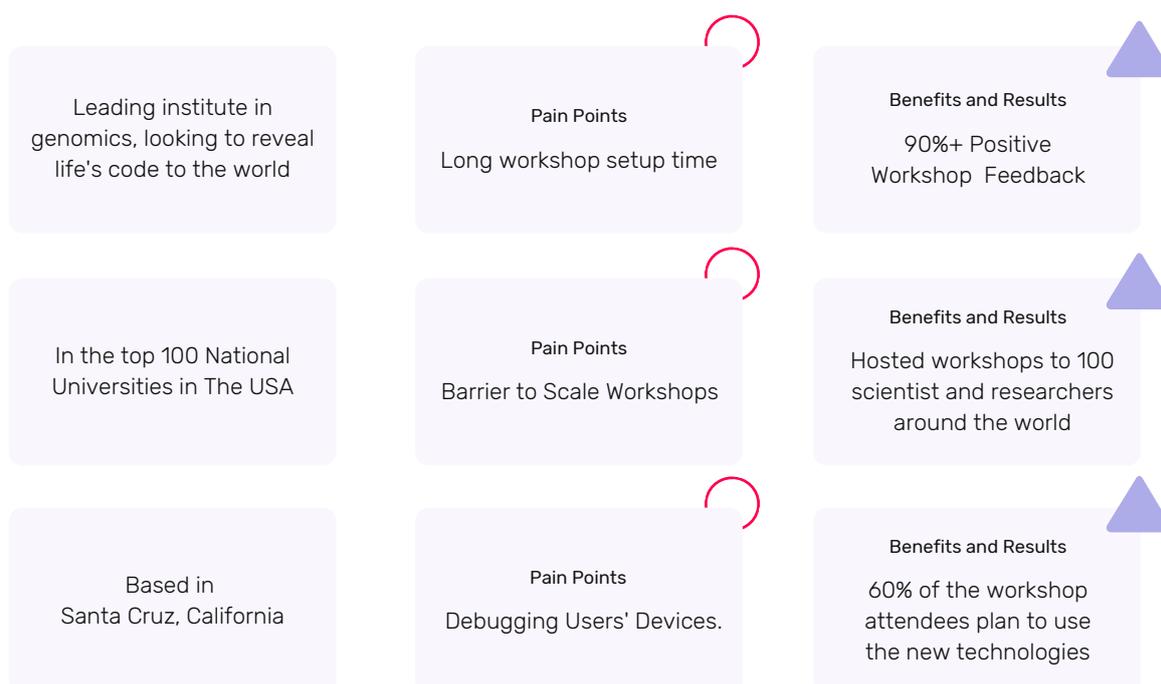
Dedicated to Creating a Healthier World

UC Santa Cruz Genomics Institute is part of the University of California, Santa Cruz. They are a public institution dedicated to creating a healthier world. The UCSC Genomics Institute aims to revolutionize genomics and transform our understanding of life itself. They openly and responsibly share what they learn and create.

UCSC Genomics Institute creates advanced technologies and open-source genomics platforms to unravel evolutionary patterns, molecular processes, and the underpinnings of disease. Their platforms, technologies and scientists unite global communities to create and deploy data-driven, life-saving treatments, and innovative environmental and conservation efforts.

One of their teams develops and maintains the workflow sharing platform Dockstore along with collaborating partners at OICR. Together they used Instruqt to teach the global science community how to use Docker and Descriptor Languages to create and share bioinformatics analysis software on Dockstore.

Fast Facts



The Challenge:

Bringing interactive tech workshops to the science community during the Covid19 Pandemic

UCSC Genomics Institute sharing knowledge is in their core. Their platforms, technologies and scientists unite global communities to create and deploy data-driven, life-saving treatments, and innovative environmental and conservation efforts. Through the year they organize workshops and conference to educate fellow scientists and researcher on new technologies and applications.

Before using Instruqt their approach had a lot of manual work and conferences were on location. They used to have participants set everything up on their machines prior to attending the workshop or spent time in the beginning of the workshop to walk attendees through. In some instances, they would have attendees set up cloud accounts and set up a compute instance from a pre-configured VM-image.

This format and setup for technical workshops was time consuming, unscalable and a nightmare for the organizers with debugging attendees' personal and company computers to work with installed applications and VMs, In late 2019, they started looking for a 'sandbox' solution to help them scale the number of attendees, In 2020, due to COVIDit became evident that their workshop conferences had to move to a virtual format.



Workshop DNA

Setup was long and took time away from the main focus of the workshop, learning how to use new technology.



Human limitations

Previous approach didn't scale well, they could only host workshops of limited size given the small number of facilitators they could send to conferences.



Debugging issues

Because of to the different machines and environments people were working on, it was often difficult to help debug issues for individual attendees while also keeping the majority of the workshop on track.

In previous workshops, I've helped run, you need to spend a lot of time and manpower on helping users set up machines. Even with step by step instructions, users still run into hurdles. This could be to the computer they are using, a lack of knowledge on the topic, etc



Tipping the scales:

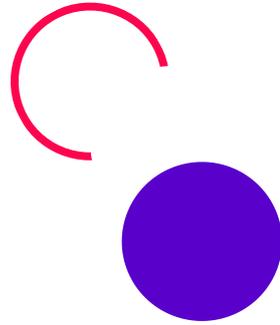
How does Instruqt measure up against alternative platforms

The team at UC Santa Cruz Genomics Institute considered similar platforms like **KataCoda** or directly setting users on a **cloud provider**.

From their perspective, **KataCoda** didn't have the robustness of features and level of support that Instruqt was able to provide.

The **cloud platforms** required too much tangential cloud knowledge that wasn't relevant for attendees, and it was difficult to control costs and permissions for large numbers of attendees.





Why Instruqt: A game-changer in hosting virtual workshops

After evaluating other alternatives, UC Santa Cruz Genomics Institute chose Instruqt to host a hands-on training workshop, “Dockstore Fundamentals: Introduction to Docker and Descriptors for Reproducible Analysis” at the 2020 Bioinformatics Community Conference.

Instruqt has made their training more accessible to new users, helping them improve their engagement with different communities. By offering an interactive, challenge-driven IT learning platform that focuses on supporting bite-sized learning content run on real technology.

With the Instruqt Platform, UC Santa Cruz Genomics Institute has the tools to provide modern learning experiences with a powerful CLI, features that allow easy testing, cloud resources, and flexibility to create and learn content. With Instruqt, virtual workshops hosts can focus on what matters, offering in depth and informative sessions that are more valuable for the attendees.

Ease of use

“Instruqt is a very intuitive platform. Especially since it was browser-based.” Workshop attendees no longer need to download VMs and applications. Now they simply receive a URL link with the Instruqt Platform, where everything is already setup for them.

Robust features and customization

“The platform is very flexible and customizable, plus the Instruqt team reacts very quickly. They were able to adapt the platform to our use-case very well and within a short time frame.” Content creators have the freedom to configure their own infrastructures with docker images and VMs.

Global workshops at friendly costs

Instruqt provides them a way to give training to hundreds of scientists and researchers at a reasonable price. It also allows for rigorous cost controls that allowed the workshop organizers at UC Santa Cruz Genomics Institute to set limits on cost and stay within their budget.



“Having something like Instruqt where the user does not need to setup anything is amazing because it allowed us to focus on teaching and not troubleshooting. Without it, we would have had a much shorter and less informative workshop.”

Andrew Duncan

Software Developer at Ontario Institute for Cancer Research



Take back teaching time

An effortless experience that allows the workshop organizers at UC Santa Cruz Genomics Institute to focus on teaching the core topics of the workshops.

"There's no need to install anything, no need to have users have previously set up an account. they only had to provide them with the invite link and they would immediately be able to start the exercises."-



Flexible content creation

The workshop trainers can customize the sandbox environments to the needs of their training and attendees.

"We were able to add additional tabs that contained links to sites, code editors, etc. This helped make the platform seem very personalized to users."-

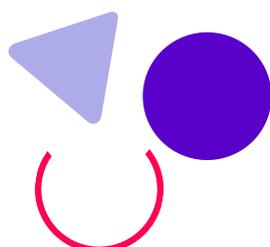


Platform for teaching new technology

Before the workshop, only 9% of attendees had previous experience with the technologies presented. By the end of the workshop over 60% of attendees said they will plan to use technologies covered to write workflows and add them to Dockstore.

Results

At their first workshop, Santa Cruz Genomics Institute experienced:



100+

Scientists and researchers from around the world joining the workshop.

60%

of the workshop attendees plan to use the new technologies.

85%

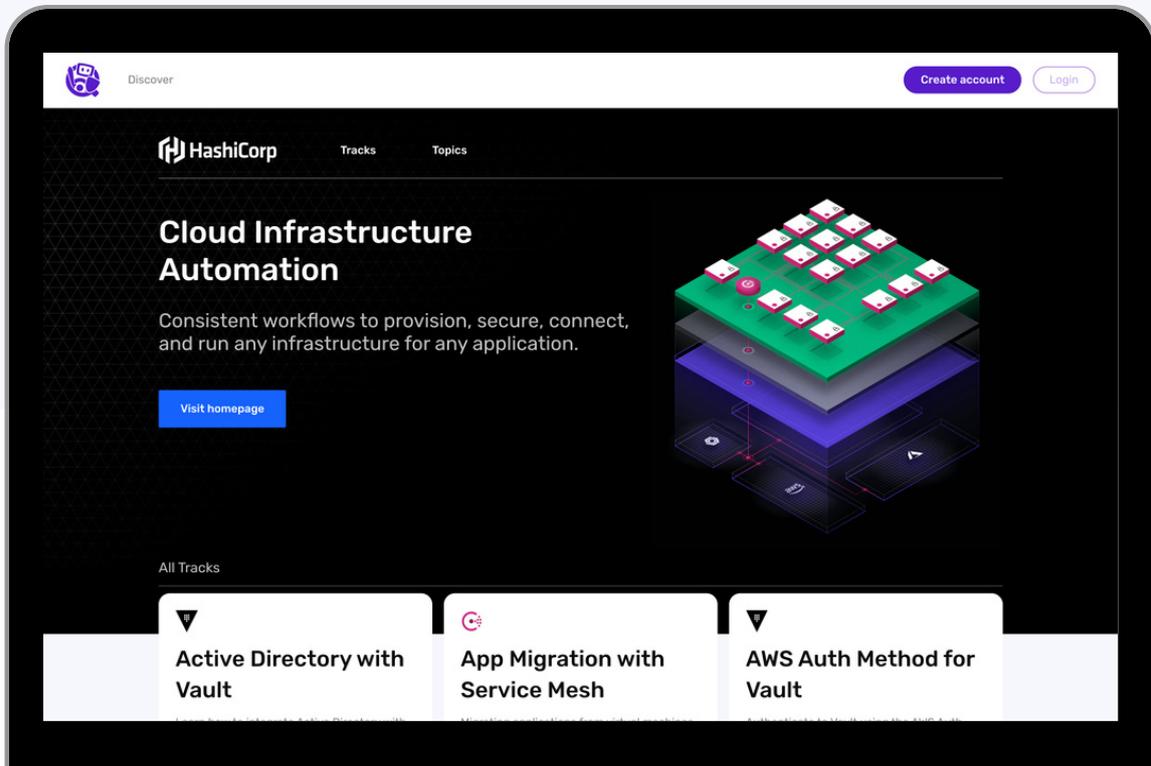
impact rate. After workshop, 60+ scientists agreed to start using Dockerstore.

90%+

of respondents rated their satisfaction with the workshop at 4/5 or 5/5.



THE NEW WAY OF VIRTUAL WORKSHOPS



OUR SUPER POWERS

Turn Problem Solvers into Product Advocates

IT engineers are problem solvers first, coders second. The best way to engage with them is by using interactive, hands-on, challenge-driven learning.

Train on Real Technology & Real Infrastructure

Configure the infrastructure you want eg. Docker containers, Virtual Machines or an entire cloud project. We will spin that up for you.

Simplify the Way you Run Training & Product Demos

Leverage the power of the cloud. Open SDK supports multiple content formats. Reduce training set-up time by 95% and increase customer satisfaction by 100%.

Boost Knowledge Retention Among Users

Beat the Forgetting Curve with learning by doing and microlearning. Enable effective learning at the point of need.