

# Cloud Computing for Real Time Data Visualization in Bioinformatics

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## Abstract

Statement of the Problem: Biotech companies are increasingly turning to cloud computing in order to keep pace with the ever increasing visualization demands of large scale datasets in Bioinformatics Research. There are so many options to turn to when using Cloud technologies that most scientists feel adrift in a sea of acronyms and technical buzz words. Any solution, cloud or otherwise, will have to encompass the entire lifecycle of a research project, from generating data, storing and archiving data, an elastic compute cluster for interactive analysis. Each stage in the analysis lifecycle can be thought of as a layer of our cloud infrastructure, and each layer must be able to communicate with each of the others. Cloud based infrastructure for deploying data visualization applications must incorporate storage for these datasets and data fetching optimization strategies. Finally these solutions must provide on demand compute infrastructure to display data, provide visualizations, and the ability to interactively inspect and analyze models and results. This talk will showcase some of the cloud solutions for real time data visualization for Bioinformatics analysis ecosystem. Including:

## Biography:

Jillian Rowe is a Bioinformatics Cloud Solutions consultant with a proven track record of successful innovation in the development of flexible infrastructures. I am known for my ability to interface with clients and businesses to uncover their critical and unique program needs, which I then leverage to design outstanding applications and technologies. My technical expertise encompasses AWS, traditional HPC, container technologies (Docker and Kubernetes), cloud formation and Terraform auto deployments. Her current areas of research include analysis optimization for the cloud and real time data visualization of large scale scientific datasets..

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