

## Ideas for genomics project: overcome legal limitations by moving computation to right location [SafeGenome\GenomeComputation].

*In a series of posts tagged with [ideas-for-genomics-project](http://scalaakka.blogspot.com/search/label/ideas-for-genomics-project) [http://scalaakka.blogspot.com/search/label/ideas-for-genomics-project] I am describing ideas for business that can be build in area of genomics. If you like those ideas and you would like to join as an investor, co-founder or consultant please contact me at LinkedIn [https://pl.linkedin.com/pub/artur-stanek/a5/643/691] or just drop me an email, [stanek.artur@gmail.com](mailto:stanek.artur@gmail.com) [mailto:stanek.artur@gmail.com] .*

*You may be also interested to check previous post "Anonymise me behind my genome" [http://scalaakka.blogspot.com/2015/11/ideas-for-genomics-project-genome.html] ", next post "Grand permissions to your genome" [http://scalaakka.blogspot.com/2015/11/ideas-for-genomics-project-give.html] " or the bigger picture [http://scalaakka.blogspot.com/2015/10/ideas-for-genomics-project-diagram-of.html] .*

**Idea "GenomeComputation"** is about moving calculations/computations/analysis over genome file to place where the file owner decided rather than moving genome file across the world.

There are several legal limitations about moving genome (for example: moving to different country) but nowadays technologies can come with a rescue. What today is offered by [Mesos](http://mesos.apache.org/) [http://mesos.apache.org/] /[Yarn](https://hadoop.apache.org/docs/current/hadoop-yarn/hadoop-yarn-site/YARN.html) [https://hadoop.apache.org/docs/current/hadoop-yarn/hadoop-yarn-site/YARN.html] with [Docker](https://www.docker.com/) [https://www.docker.com/] and [Spark](http://spark.apache.org/) [http://spark.apache.org/] was almost impossible (or very hard to achieve) yesterday.

Customer can have her/his genome file in the cloud and not being aware in which country it exactly is but definitely knows where she/he is. While sharing this file with some company she/he should be able to define constraints like:

- in which country file should be analyzed,
- should file be delivered to some company or maybe that company should send container which will perform analysis over that file (but file would never leak outside of [GenomeBank](http://scalaakka.blogspot.com/search/label/GenomeBank) [http://scalaakka.blogspot.com/search/label/GenomeBank] )

If analysis needs to be done in defined location usually produced results does not have this limitation (and can be exported to any location to prepare nice, human readable reports for the customer).

Publicly available GenomeComputation's API can play a role of meeting point between genome(s) owner(s) and those that wants to do some computation over them.

If they both does not trust themselves (genome owner does not want to leak the file and computation provider does not want to leak package with algorithms) then they should use third party service to which they both trust.

Posted 6th November 2015 by [Artur Stanek \(kermitas\)](#)

Labels: [bioinformatics](#), [GenomeComputation](#), [genomics](#), [ideas-for-genomics-project](#), [non web find](#), [SafeGenome](#)



Add a comment

Enter your comment...

Comment as: Artur Stanek (k ▼)

Sign out

Publish

Preview

☐ Notify me