

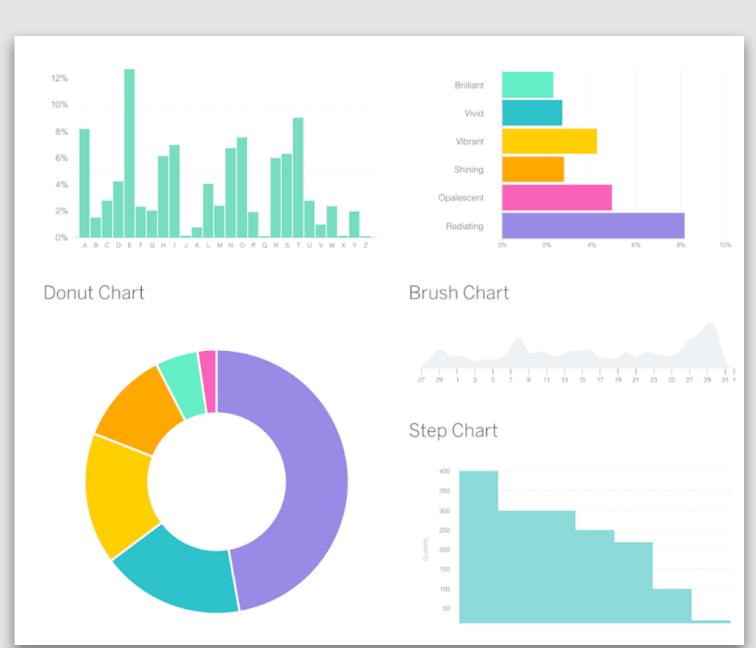
AnalySim: A web platform for visualizing and analyzing neuronal databases



Hieu Dinh, Daina Thomas, Anca Doloc-Mihu, Cengiz Gunay / School of Science and Technology, Georgia Gwinnett College

ABSTRACT

AnalySim is a free online web platform enabling researchers to analyze and share data by providing interactive visualizations, and collaborate with others. The open platform is specialized for working with high-dimensional data sets



such those constructed via computational modeling. Analysim also allows to run custom analysis on any type of data.

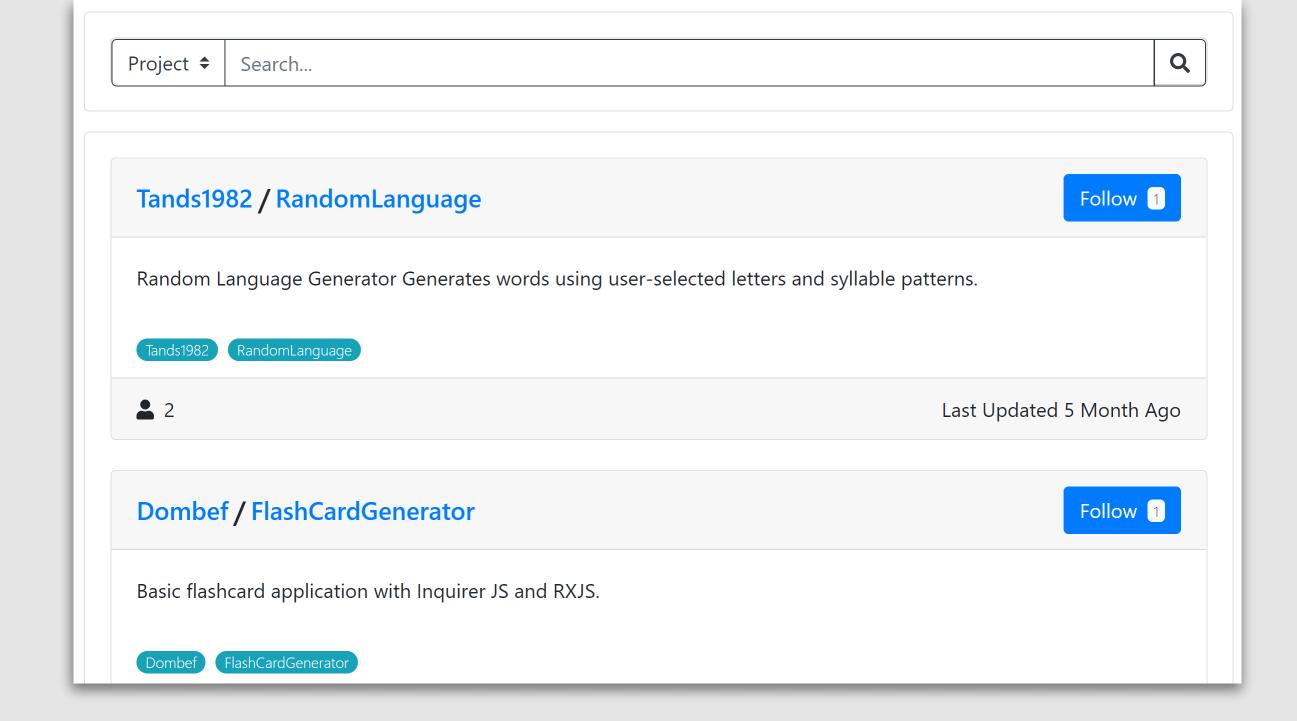
BROWSE & ANALYZE DATA SETS

On the web, interactive, and easy to share!

- Improves visibility of your research
- Reviewers can reproduce your analyses
- Tools available specific for parameter search, but allows to run your custom code

Foster collaborative research:

- Access others' public data sets and analysis
- Join existing teams or start your own
- Guide your own research; Ask novel questions



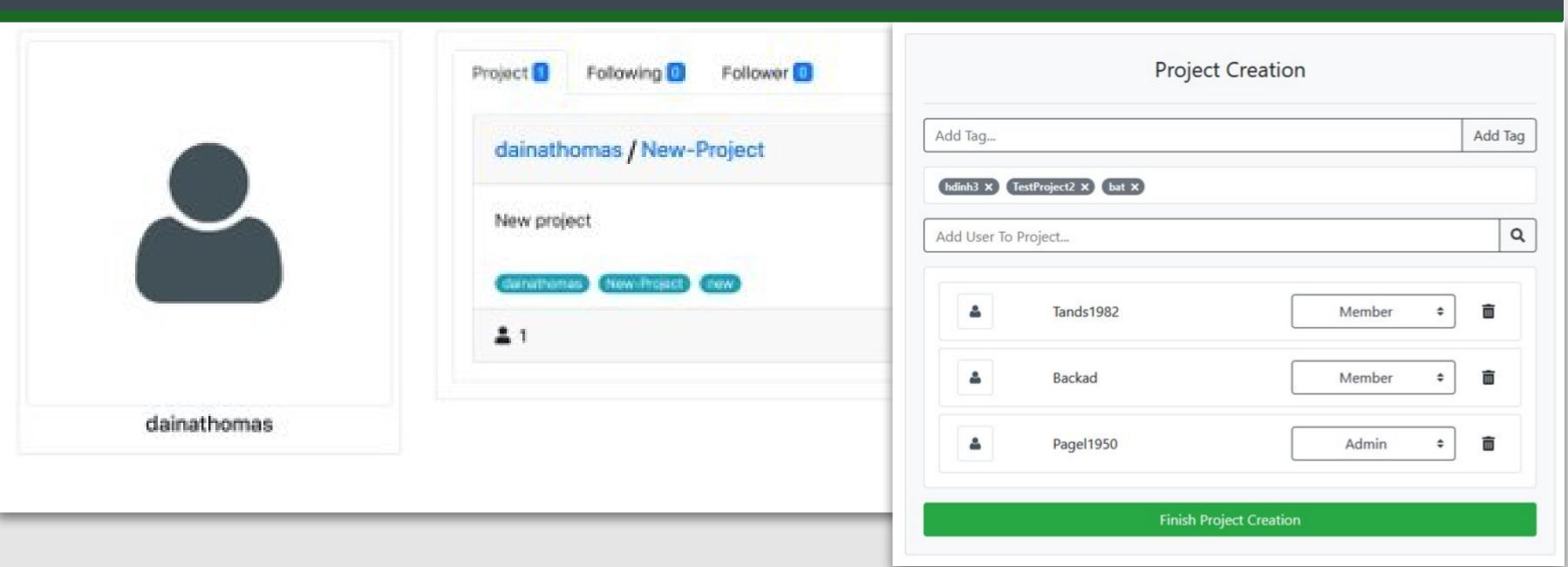
CROWDSOURCED RESEARCH ON A SOCIAL PLATFORM SIMILAR TO GITHUB

Social scientific environment:

- Fork/clone to make it your own
- Tag/Follow people and projects

Actions on shared resources by others:

- Filter their data sets
- Duplicate their analyses and improve
- Publish findings via interactive visualizations



Helps solving scientific problems - especially when they are so large and complex as in parameter search!

Source code is available on Github Github Try our demo site at analysim.tech and give us feedback

OBSERVABLEHQ INTEGRATION FOR ANALYSIS IN WEB NATIVE NOTEBOOKS

 Visualize their data through an ObservableHQ Javascript notebook with custom analysis

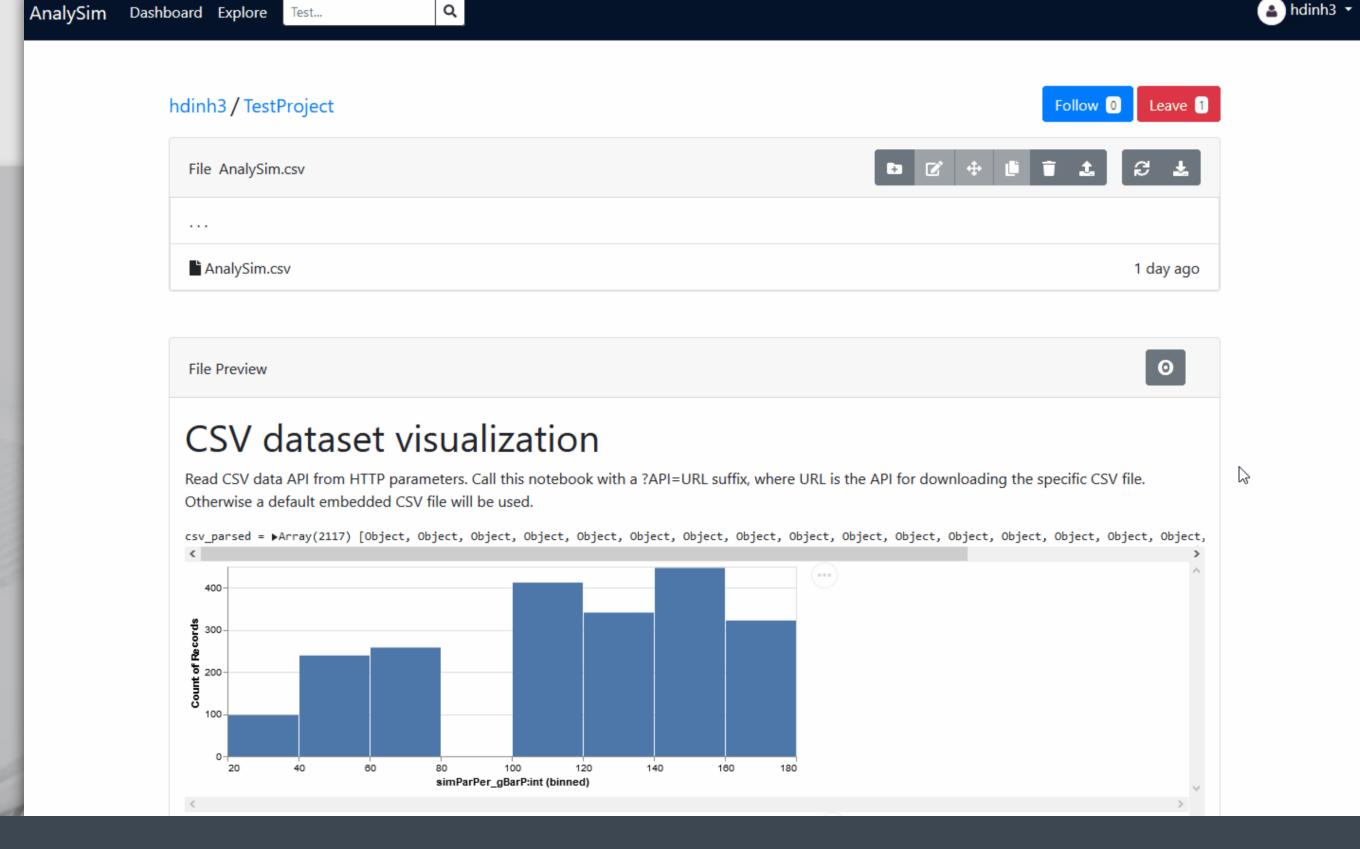
 Plotting with D3.js, Plotly, Vega Lite, and more

- Live editing and sharing
- Commenting with a Github account

Sign up

Sign up with your Github

G Sign up with your Google



CURRENT PROGRESS

- Account creation and authentication via Github and Google
- User can create project and upload files
- File Storage system on Microsoft Azure Cloud
 - Public API to access file
- Download / Upload / Move / Rename File
- ObservableHQ Integration: Can load custom notebook
- Used frameworks: Angular, ASP.NET Core, and PostgreSQL