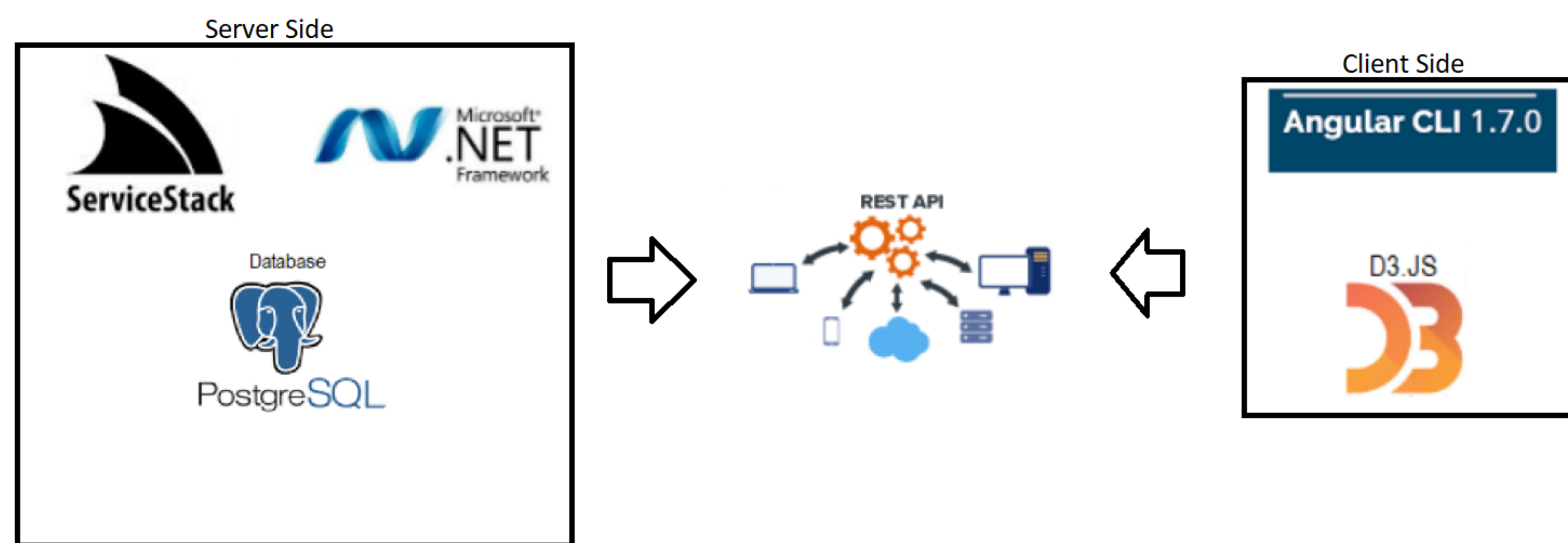


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INTRODUCTION

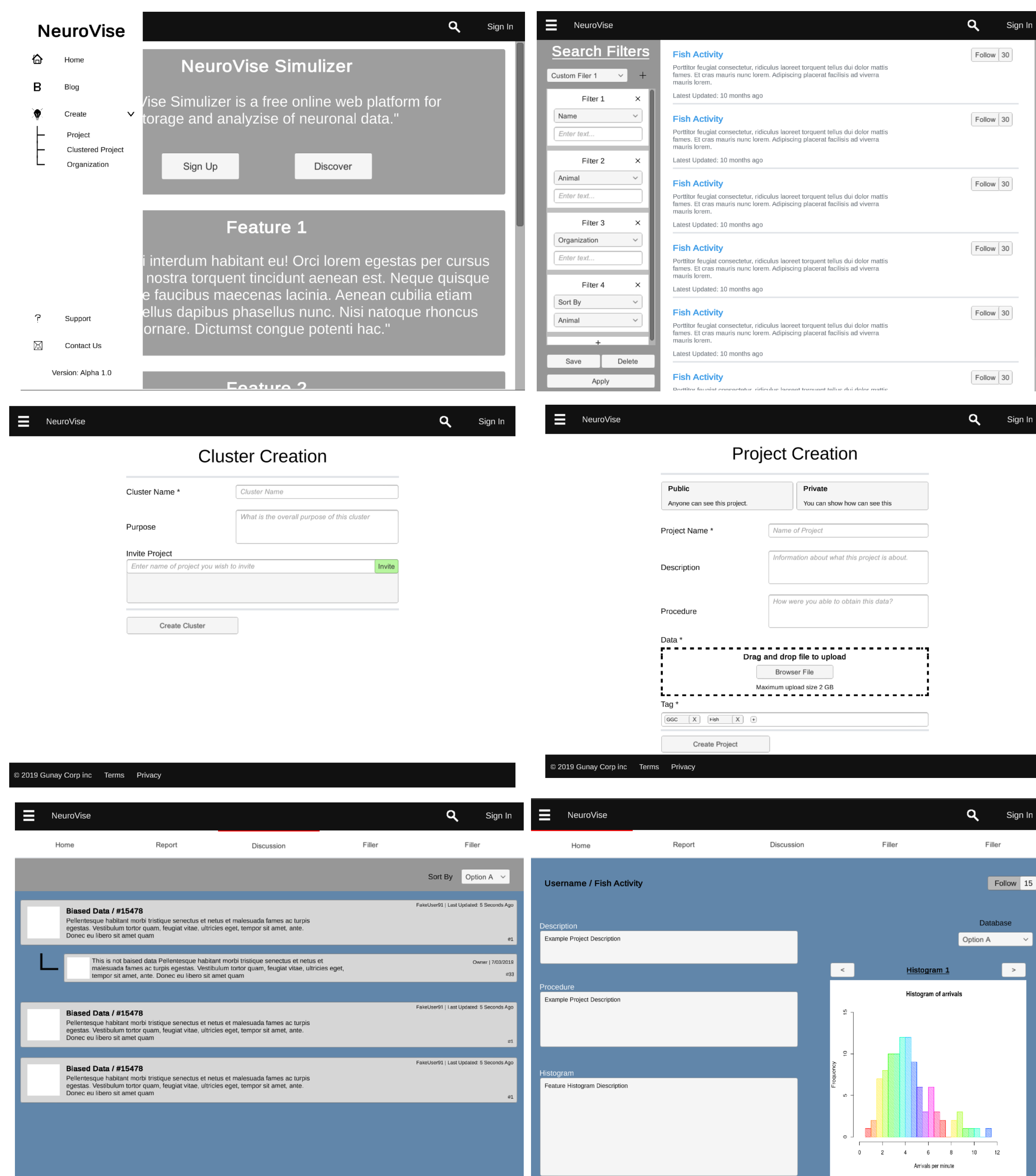
NeuroVise aims to be a free web platform for researchers to upload their neuronal data and to provide access to others for visualization and analysis. We target parameter search type simulation data through a user-friendly experience and opportunities for interaction. We implemented a back-end storage and histogram creation with preliminary interfaces.

SOFTWARE ARCHITECTURE

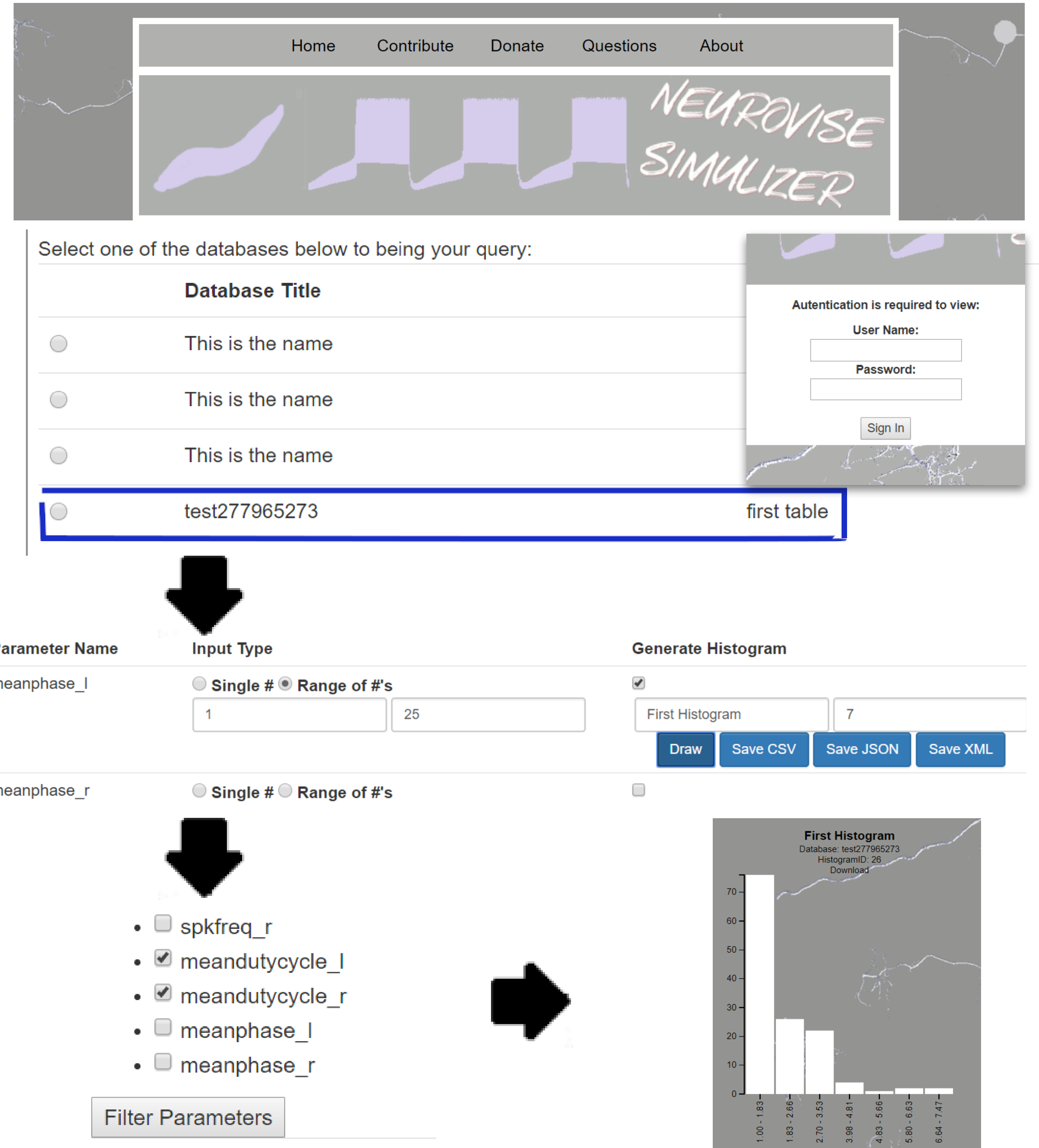


- Server-side manages the data through .Net and SQL
- Data transferred to the client-side via RESTful web interface
- Client-side manipulates and visualizes data using JavaScript

PROPOSED INTERFACE DESIGN



WORKFLOW FOR CREATING GRAPHS



PROPOSED USAGE WORKFLOW

- Researcher creates organization and project pages
- Others can view public data and create new analysis views
- One can merge others' analyses into their page
- Clusters allow multiple researchers to collaborate

Issues:

- Histograms, but planning scatter/line 2D and 3D graphs
- Stuck in ServiceStack and Angular 1.7
- Can rewrite in .Net Core and remove ServiceStack
- New database and UI design implementation in progress

SUMMARY AND FUTURE DIRECTIONS

- We have created a draft user interface with a SQL database back-end for querying and displaying tabular neuron data
- So far we only have parameter range selection for downloading CSV data and creating histograms

Future directions

- Admin user can upload tabular CSV data
- Make histograms more interactive to select values and ranges