SAGENERATOR - A Tool For Generating Hypotheses

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Recall - Project Goals

- **Produce a infovis tool for gene expression data - SAGE (Serial Analysis of Gene Expression).**

TAG	Library 1 Count	Library 2 Count
AAAAAAAAAT	5	35
AGTAAAACAA	6	17
ACCCCCCCAA	1	23
GAAAAAAAAT	3	50

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SAGENERATE

- **Graphs**
  - **scatter plots**
  - **parallel coordinates**
  - **histograms**
- **Dynamic filtering and fisheye technique**
  - **minimizes occlusion**
- **Use of color**
  - **facilitates organization and labeling.**

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Strengths

- **Three types of graphs and a table**
- **Multi-graph viewing**
- **Multi-file comparison**
- **Dynamic filtering**
- **Dynamic querying**
- **Free and open source**
- **Multiplatform - written in java**
- **Flexible - allows user to import their own custom tables**

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Weaknesses

- **Limited to**
  - **4 graphs at a time**
  - **4 files**
- **Performance**
- **Missing controls for histogram and parallel coordinate**
- **Filtered tables cannot be saved**

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Future Directions

Minor Work
- **Increase its capacity**
  - **Allow more than 4 graphs**
  - **Allow more than 4 files**
- **Implement gray-out filtering.**
- **Allow exporting of filtered tables**

Major Work
- **Incorporate it with BioRAT - an information extraction tool**
- **Integrate with statistical software (ie. Permutation test).**

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Demo

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Credits

- Tamara Munzner
- Raj Chari

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