

Data visualization and visual analytics

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This talks cover a wide range of visualizations and their applications, such as geospatial visualization, hierarchical layouts, network visualization, and multivariate data analysis.

In the first part, I introduce a technique for exploring the relationships between variables in huge databases using visual features. These visual features aim to characterize the data distributions within a scatterplot (a plot of the values of variable X versus the corresponding values of variable Y). An extension of these features is discussed to handle pixels in images and demonstrated on half million of SETI waterfall plots.

In the second half of my talk, I cover more recent research on visualizing hierarchical and complex networks. I will demonstrate its application to various datasets, including protein interaction network and collocated emerging topics obtained from political blogs in the recent years.