I will describe the research in visual analytics (the integration of visualization and machine learning) that is going on at UMass Lowell and identify specific problems that students can work on.

The topics covered will include

1. high dimensional visualization
2. text visualization (specifically news articles)
3. visualization of massive data sets (points and graphs)
4. applied perception (novel displays)
5. visualization and computer human interaction (new support tools, novel interfaces, highly interactive web graphics)
6. multimedia interfaces (integrating sound and haptics)
7. application areas (microarrays, breast cancer prediction, indicators)