## Week Starting 12<sup>th</sup> September

I spent this week looking through some of the Handel C tutorial, and modifying the anomaly detector code to increase its accuracy and versatility. The original paper uses hand-derived data to antigen encoding, but I'm working on a method of automatically determining this encoding based on a sample of the population.



The above screenshot is from the VideoITools program using my filter to detect the context switch between anomalous data and normal data based on sorted Wisconsin breast cancer data for machine learning. The X axis represents data item over time, and the Y axis represents danger, where red and green are the two data classes. The experiment is designed to reflect the experiment in section 5 of "Introducing Dentritic Cells as a Novel Immune-Inspired Algorithm for Anomaly Detection".

On Friday I met again with Gabriel to discuss the filters I've written, and he asked me about details of my ideas on the signature generation step that Matti will be implementing. He would like me to work closely with him and Matti to help produce a complete system over the next two weeks. Will this be OK, or do you have another target for me in mind?

Many Thanks, Steven