**Company: Cardiff & Vale University Health Board**

**Contact: Dave Price**

**Briefly describe the idea or problem and discuss why this project is relevant and timely.**

Managing health services and scheduling patient interventions at the right time are some of the many aspects in providing better outcomes for patients. For example, knowing how many hip replacements will be carried out in the next year and to which patients will be very helpful for planning health services and patient interventions.

**What are the specific aims of this project?**

To predict what the next patient event will be. An event could be a diagnosis, attending an outpatient clinic, a scan or an operation. The students solution could use traditional statistical probabilities or machine learning i.e. similar to predictive text, predicting the next word, predicting the next event in the patients timeline.

**What specific methodologies/skills/software are most important for this project?**

Data wrangling (SQL and or python). Depending on the students solution traditional probabilities or machine learning and machine learning model development life cycle.

**Do you envisage any barriers that may impact on the objectives of this project? For example, availability or access to data based on the current pandemic/working from home.**

None.

**Are there any eligibility requirements to undertake this work?**

The student would be required to sign an honorary contract and data protection agreement with the Health Board.

**Is the project suitable for a part-time student?**

If can be completed in less than six concurrent months.