**MSc Project - Reflective Essay**

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| **Project Title:** | **Investigating the effect of Coronavirus Lockdowns on Crime Rates within the UK** |
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| **Programme of Study:** | MSc Data Science and AI |

For my MSc project, I used a combination of classical and Bayesian statistical methods to investigate the effect that the coronavirus lockdowns had on crime rates within the UK. During the coronavirus pandemic of 2020 – 2021, radical and sudden changes were introduced to UK society in terms of public mobility. This produced a unique environment in which the usual risk factors such as a perpetrator and victim’s mobility (Farrell et al, 2020) and situational opportunity for a crime to occur (Clarke, 2012) were reduced. I felt this was an interesting topic to explore as the pandemic had recently ended and the aftereffects were still being experienced throughout the country. Papers I had researched on the topic had also only focused on short time periods within the pandemic, such as the immediate period after lockdown was initiated. During my own research more data was available and allowed a full look back on the entire pandemic period. Using classical statistical models allowed investigation into the data that was observed and the associations between variables. The Bayesian causal network was able to implement uncertainty about causes and was used to try and model the true and unobserved crime rates.

Analysis of Strengths and Weaknesses:

References:

Clarke, R.V. (2012). Opportunity makes the thief. Really? And so what? Crime Sci 1, 3 <https://doi.org/10.1186/2193-7680-1-3> accessed [30/06/22]

Farrell, G., N. Tilley. (2020). Coronavirus: How crime changes during a lockdown. The Conversation, 02 April. [Coronavirus: how crime changes during a lockdown (theconversation.com)](https://theconversation.com/coronavirus-how-crime-changes-during-a-lockdown-134948) accessed [30/06/22]