**Statement of Authorship for joint/multi-authored papers for PGR thesis**

To appear at the end of each thesis chapter submitted as an article/paper

The statement shall describe the candidate’s and co-authors’ independent research contributions in the thesis publications. For each publication there should exist a complete statement that is to be filled out and signed by the candidate and supervisor **(only required where there isn’t already a statement of contribution within the paper itself).**

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| --- | --- |
| Title of Paper | Causal Falsification of Digital Twins |
| Publication Status | □Published □ Accepted for Publication  **x** Submitted for Publication □Unpublished and unsubmitted work written  in a manuscript style |
| Publication Details | Rob Cornish\*, **Muhammad Faaiz Taufiq**\*, Arnaud Doucet, and Chris Holmes. Causal Falsification of Digital Twins, 2023. |

Student Confirmation

|  |  |  |  |
| --- | --- | --- | --- |
| Student Name: | Muhammad Faaiz Taufiq | | |
| Contribution to the Paper | The idea of using causal bounds for assessing simulator models was originally conceived by Rob Cornish. Chris Holmes proposed to focus on the application to digital twins specifically. I and Rob Cornish jointly derived the theoretical results presented in the paper and developed the methodology for falsification. I implemented and ran all of the experiments presented in the paper. During frequent meetings, all collaborators helped out with helpful suggestions on methodology and feedback. | | |
| Signature | | Date | 15/07/2024 |

Supervisor Confirmation

By signing the Statement of Authorship, you are certifying that the candidate made a substantial contribution to the publication, and that the description described above is accurate.

|  |  |  |
| --- | --- | --- |
| Supervisor name and title: Dr Rob Cornish | | |
| Supervisor comments  I confirm the above is accurate | | |
| Signature: | Date | 15/07/2024 |

This completed form should be included in the thesis, at the end of the relevant chapter.