Machine learning and AI methodologies are gradually being developed to aid in the description and analysis of palaeontological and archaeological data. Such approaches hold the hope of expanding the quantification of morphologies, enhancing pattern recognition and classification, and providing the basis for much greater samples, and so paving the way for the larger scale data science approaches that have characterised bioinformatics. Here we report on one such initiative – PALAEOANALYTICS, a project to capture lithic data.

Over more than one hundred years, archaeologists have recovered, recorded, photographed and drawn stone tools, and used these to build up strong models of their typologies, technologies, distributions and affinities. Much of this information is recorded in publications of greater or lesser accessibility. PALAEONALYTICS is developing computer vision technologies, using machine learning methodologies, to retrieve and capture these data in usable forms. Using classic line drawings scanned from the literature, we have developed technique that retrieve the size and shapes of flakes, platform location and caharateristics, and dorsal flake distribution and direction. This has involved …. Camila/Jason can you add …

In this paper we describe these methods and present some initial results, nd outline how these can be used to enhance current models of prehistoric technology.