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Breakthrough AI identifies 50 new planets from old NASA data

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<https://www.cnn.com/2020/08/26/tech/ai-new-planets-confirmed-intl-hnk-scli-scn/index.html>

Researchers at the University of Warwick create a machine learning algorithm that can decipher actual planets from files that contain many potential planet candidates.

At the University of Warwick, researchers have created a machine learning algorithm that was trained to identify exoplanets from a collection of data collected from NASA's now retired Kepler Space Telescope. Normally, when a researcher is searching for exoplanets, they will observe the sky and look out for brief moments where a possible exoplanet is moving between the telescope and the exoplanet's star, this usually appears just as a dip of light. However, these dips can be caused by other factors such as background interference or even errors in the camera. The AI the researchers at University of Warwick trained can decipher whether these dips are actually an exoplanet, or just a false positive. So far, as of August 26, 2020, this algorithm has identified 50 exoplanets, which range in size from being as large as Neptune to smaller than Earth. This is the first time machine learning has been used for this type of task, and since it is a machine learning algorithm, it will only continue to get better over time. As of now, most of the exoplanets found must be verified through other methods, but as of now, this new algorithm can serve as a new validation technique to confirming an exoplanets existence.

In a society where the next frontier is the skies, it is useful to acquire more and more tools to making this task easier. Machine learning seems to be a great candidate for observing and validating researchers' findings with more certainty than before. As time goes on, this algorithm will only improve both in speed and accuracy allowing us to apply it to more and more datasets allowing us to map out the skies more accurately. While this technology seems very specialized and non-intrusive to other research done in this field, it can pose problems where this type of validation becomes a dead-end for actual progress. If the findings of this algorithm begin to fall for false positive after becomes established as one of the validation tools, while probably rare, this can start to lead researchers away from actual progress. Outside of this, this form of AI is very localized and would not pose any risk in other sectors of science.