# Article information:

D. Wang - Seismic Stratum Segmentation Using an Encoder–Decoder Convolutional Neural Network
[https://click.endnote.com/viewer?doi=10.1007%2Fs11004-020-09916-8=WzM0MzY4ODYsIjEwLjEwMDcvczExMDA0LTAyMC0wOTkxNi04Il0.bhe3zCSEz8YK4Mmaebo-LG5YNPA](https://click.endnote.com/viewer?doi=10.1007%2Fs11004-020-09916-8&token=WzM0MzY4ODYsIjEwLjEwMDcvczExMDA0LTAyMC0wOTkxNi04Il0.bhe3zCSEz8YK4Mmaebo-LG5YNPA)

# Article summary:

1. Seismic exploration often produces large volumes of seismic datasets, making the processing and interpretation of seismic data time consuming.

2. Artificial intelligence based on machine/deep learning technologies has been successfully applied in various disciplines, including seismic data interpretation.

3. The U-Net architecture was developed to address the issues with pixel-level classification by using a skip-connection to connect the downsampling layer to the upsampling layer.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “D. Wang - Seismic Stratum Segmentation Using an Encoder–Decoder Convolutional Neural Network” is a well-written and informative piece that provides an overview of how artificial intelligence can be used for seismic data interpretation. The article is written in a clear and concise manner, providing readers with a comprehensive understanding of the topic at hand. The author does an excellent job of explaining the challenges associated with traditional computer-aided seismic interpretation methods, as well as introducing the U-Net architecture as a potential solution to these issues.

The article is generally reliable and trustworthy; however, there are some areas where it could be improved upon. For example, while the author does provide some evidence for their claims (e.g., citing research papers), they do not provide any counterarguments or explore any potential risks associated with using artificial intelligence for seismic data interpretation. Additionally, while the author does mention some potential biases (e.g., signal-to-noise ratio and horizontal continuity of horizons), they do not provide any further detail or explanation on these topics which could be beneficial for readers who may not have prior knowledge on this subject matter. Furthermore, while the article does present both sides of the argument (i.e., traditional computer-aided methods vs AI), it does so in a somewhat one-sided manner by focusing more heavily on AI than traditional methods which could lead readers to form biased opinions about this topic without being fully informed about all aspects involved in seismic data interpretation.

In conclusion, while this article is generally reliable and trustworthy, there are some areas where it could be improved upon such as providing more evidence for its claims and exploring potential risks associated with using AI for seismic data interpretation as well as presenting both sides of the argument equally without bias or partiality.

# Topics for further research:

* Seismic data interpretation
* Computer-aided seismic interpretation
* U-Net architecture
* Signal-to-noise ratio
* Horizontal continuity of horizons
* Artificial intelligence risks

# Report location:

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