"Could a Neuroscientist Understand a Microprocessor?" and "Reading what Machines think"

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Modern computing machines are extremely complex and understanding what they are doing seems to be as complex as understanding what human brains are doing.

The paper "Could a Neuroscientist Understand a Microprocessor?" [2] uses this metaphor and tries to answer the questions of its title.

In "Reading what Machines think" [4], using the same metaphor, we have tried to answer to a similar question: can we understand what computers are doing by looking at them in the same way brain are analyzed by neuroscientists? Then, we have further explored whether we could take data directly from memory chips [3], we have compared whether EEG or fMRI are comparable tools to analyze the "brain" of computers [5] and, finally, we have experimented with the same metaphor over more cognitive tasks performed by computers [1].

References

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