


NAME: AI Chess Engine


DATE: July 4, 2025 5:09 PM

DESCRIPTION OF TECHNOLOGY

A chess engine (bot) that can recommend chess moves given the current chess board state, using ML/DL algorithms.




HUMAN VALUES




The technology doesn't affect the identity of its users. It is account-less and does not distinguish between users.

TRANSPARENCY




Stakeholders are well familiar with the concept and business model, and they have been presented with a comprehensive project plan.

IMPACT ON SOCIETY




The project does not aim to solve a particular real-world problem per se. It's purpose is primarily self-educational for its creator(s). It is a practical project that will allow the creator(s) to study the domain of chess AI, and apply several deep learning algorithms in the process

STAKEHOLDERS




- Kiril K. (creator)
- Iman Mossavat (teacher, project endorser)
- Nico Kuijpers (teacher, project endorser)
- Qin Zhao (tutor, project endorser)

SUSTAINABILITY




The energy cost for training the models can be significant if advanced hardware will be used - e.g. project PC or supercomputers. After training, inference won't consume much energy.

HATEFUL AND CRIMINAL ACTORS




The technology cannot be used to break the law per se. It can, however, be misused by breaching the community rules of certain online chess playing platforms (lichess, chess.com), during its testing.

DATA




Multiple approaches are explored during development of the technology, and only one requires data, others are based on self-play. The data used is homogenous, unbiased and high-quality.

FUTURE




Given the educational purpose of the project, it might be given as an example to future students of the AI advanced course.

PRIVACY



The technology does not register personal data and is trained using open-source, publicly available data.




INCLUSIVITY



The technology might have built-in bias in performing better in certain chess positions, or with a set of chess pieces (e.g. performs better with white than black).

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HUMAN VALUES




How is the identity of the (intended) users affected by the technology?

To help you answer this question think about sub questions like:

- If two friends use your product, how could it enhance or detract from their relationship?
- Does your product create new ways for people to interact?...


TRANSPARENCY



Is it explained to the users/stakeholders how the technology works and how the business model works?

- Is it easy for users to find out how the technology works?
- Can a user understand or find out why your technology behaves in a certain way?
- Are the goals explained?
- Is the idea of the technology explained?
- Is the technology company transparent about the way their...


IMPACT ON SOCIETY



What is exactly the problem? Is it really a problem? Are you sure?

Can you exactly define what the challenge is? What problem (what 'pain') does this technology want to solve? Can you make a clear definition of the problem? What 'pain' does this technology want to ease? Whose pain? Is it really a problem? For who? Will solving the problem make the world better? Are you sure? The problem definition will help you to determine...


STAKEHOLDERS



Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by...

When thinking about the stakeholders, the most obvious one are of course the intended users, so start there. Next, list the stakeholders that are directly affected. Listing the users and directly affected stakeholders also gives an impression of the intended context of the technology.
...


SUSTAINABILITY



In what way is the direct and indirect energy use of this technology taken into account?

One of the most prominent impacts on sustainability is energy efficiency. Consider what service you want this technology to provide and how this could be achieved with a minimal use of energy. Are improvements possible?


HATEFUL AND CRIMINAL ACTORS



In which way can the technology be used to break the law or avoid the consequences of breaking the law?

Can you imagine ways that the technology can or will be used to break the law? Think about invading someone's privacy. Spying. Hurting people. Harassment. Steal things. Fraud/identity theft and so on. Or will people use the technology to avoid facing the consequences of breaking the law (using trackers to evade speed radars or using bitcoins to launder...

DATA




Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into...

There are fundamental issues with data. For example:

- Data is always subjective;
- Data collections are never complete;
- Correlation and causation are tricky concepts;
- Data collections are often biased;...


FUTURE



What could possibly happen with this technology in the future?

Discuss this quickly and note your first thoughts here. Think about what happens when 100 million people use your product. How could communities, habits and norms change?


PRIVACY



Does the technology register personal data? If yes, what personal data?

If this technology registers personal data you have to be aware of privacy legislation and the concept of privacy. Think hard about this question. Remember: personal data can be interpreted in a broad way. Maybe this technology does not collect personal data, but can be used to assemble personal data. If the technology collects special personal data (like...

INCLUSIVITY



Does this technology have a built-in bias?

Do a brainstorm. Can you find a built-in bias in this technology? Maybe because of the way the data was collected, either by personal bias, historical bias, political bias or a lack of diversity in the people responsible for the design of the technology? How do you know this is not the case? Be critical. Be aware of your own biases....

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