

# Simon Klüttermann

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Dear Hiring Manager,

I have recently finished my master studies (theoretical physics) and I am currently looking for an challenging job. Your offer certainly fulfills this requirement, but I also think that I fulfill your qualifications.

I have extensive experience programming in python (to a slightly lower degree also in c++) and the debugging/optimization skills that follow from this. Statistical data analysis and experimental design are a central part of every physicists education, and in my case, also thousands of machine learning models were part of it.

As a physicist, I might miss extensive knowledge about computer hardware, but I am able to work with computation clusters comfortably and have a great work ethic, that also results in very quick prototypes. I work well with tensorflow/keras, I know about A\* and regularisation in machine learning<sup>1</sup> and I have expertise in deep learning and graphs (and to a lower degree in RL, information representation/retrieval, game theory and NLP). But my true expertise lies in anomaly detection, which you might not list in your job offer, but may be one of the most useful applications of machine learning to finance, as it can drastically reduce most risks.

I like to think that I am very creative and hope that I always stay curious. I do not remember ever having communication problems, and as a machine learner working with non machine learning scientist, I have learned to work in multi-disciplinary teams. I might not have any professional experience in finance, but I have always seen stock markets as a fascinating field to write algorithms for (see for example [here](#)), since there might be patterns in financial data, but there are also forces trying to hide these patterns again.

I also think, that my fascination for anomaly detection might be most effectively used in finance, since gamestop/2008 showed how outliers can be devastating to big financial firms

Thank you for reading my cover letter and for considering me for this position.

Sincerely,



Simon Klüttermann

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<sup>1</sup>Even though I am not completely sure why you pick those two topics