Simon Klüttermann

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Desy January 21, 2021

Human Resources Department Notkestraße 85 22607 Hamburg

Dear Prof. Katzy,

i am currently looking for a PHD position, and the one you advertise here is quite interesting to me. I would like to pursue a career between particle physics and machine learning, and your advertised position would allow me to nicely combine things I already know about with things I would like to learn more about.

Using the knowledge and skills I have acquired in my master studies, combined with my technical abilities, I also believe that I can provide significant value to your research group, while providing me invaluable experience to prepare me for my future career. In (my own projects and) my theses, I have applied knowledge of machine learning and especially anomaly detection to (for example) finding new physics symptoms in jet events. Generative models are quiet interesting to me, and since they are sometimes surprisingly similar to anomaly detection algorithms, I have some experience there too (see for example here or here).

Next to my familiarity with tensorflow and keras, I also have experience with genetic programming and statistics. A more complete list of my interests/skills can be seen in my CV.

My interest in particle physics resulted in me not only writing my masters thesis about it, but I also took every course covering theoretical and experimental particle physics offered by my university (see here).

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

Sincerely,

Simon Klüttermann

Gorson Kleitburger

For reference letters, please write a quick email to

- Prof. Dr. Michael Krämer: mkraemer@physik.rwth-aachen.de
- Dr. Alexander Mück: mueck@physik.rwth-aachen.de