Bruno Jerković   25 Jan 2024
Motivation Letter

Dear Vattenfall Recruiting Team,

I am enthusiastic about applying for the *International Trainee – Data Scientist*. In April of 2023, I graduated with a Master's in Computing Science where I wrote the thesis on the topic of *Connectivity Estimation of Financial Time Series Using Deep Learning Models*. In this thesis, I designed, implemented and analyzed various time series deep learning models for connectivity estimation between stocks. I wrote this thesis as a part of my *Excellence Fellowship* within *European Laboratories for Learning and Intelligent Systems (ELLIS)*, a prestigious network of researchers and institutions across Europe focused on advancing the state of the art in artificial intelligence and machine learning. Currently, I am writing my thesis for the Master's in Artificial Intelligence on the topic *Enhancing Price Estimation Using Deep Recommendation Model* at a company in Amsterdam. This project involves developing, deploying and maintaining an end-to-end custom machine learning pipeline for price estimation. This hands-on experience, combined with my academic background, has equipped me with practical skills in data science, which I am confident will be invaluable in this position.

I am deeply inspired by Vattenfall's commitment to a fossil-free future, particularly through its innovative use of digital technologies and AI in the energy sector. The company's groundbreaking project in Gustavsberg, where AI-driven solutions have optimized building heating, achieving significant energy savings and enhanced tenant comfort, particularly resonates with my passion for sustainable energy and data-driven solutions. Applying for the *International Trainee – Data Scientist* position at Vattenfall is a natural step for me, driven by my ambition to contribute significantly to energy-efficient solutions and the energy sector's evolution. I am eager to leverage my data science expertise to further Vattenfall's efforts in reducing energy consumption and carbon footprints, much like the success seen in their Swedish projects. The focus of the trainee programme on personal and professional development aligns perfectly with my career aspirations, presenting an ideal platform for growth and alignment with Vattenfall's innovative and sustainable vision.

As a student research assistant at Radboud University, I collaborated with researchers from Glasgow University and Delft University. In this role, I implemented and analyzed various deep learning solutions for anomaly detection in aerospace engineering material images. Collaborating with a multidisciplinary team has enhanced my ability to, through effective verbalization and visualization, communicate complex methodologies and findings enabling successful application across various fields. Furthermore, I made substantial contributions as a second author to two conference papers and a journal paper, reflecting the impactful research conducted during my time in this position. I am confident in my work ethic and commitment to excellence, which are also visible through my acquired scholarships and extracurricular work. I have broad experience with various software development platforms, allowing me to abstract above the language syntax and obtain an analytical problem-solving mindset. The projects I have worked on in the past have provided me with the skill set to develop, train and maintain numerous machine learning models.

Thank you for considering my application. I look forward to the possibility of starting my career at Vattenfall.

Sincerely,

Bruno Jerković