ROBERT LEAL

DATA SCIENCE AND ARTIFICIAL INTELLIGENCE UNDERGRADUATE

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To

Weaviate

Machine Learning Engineer

Dear Weaviate,

Robert's interest in data science and computer science stems from his fascination with technology in general. He writes regarding the Machine Learning Engineer role being offered at Weaviate, with this interest in mind.

His experience with algorithmic design, AI development, programming in Java/Python/Next.js, statistics in R, and teamwork makes him feel confident that he can add serviceable value to the workplace at Weaviate. Weaviate, in particular, captivates his interest significantly, and he believes he can apply his experience to Weaviate’s future in the information space.

Robert is interested in diverse companies that focus on innovation and building technology that utilizes relays of information and data collection to enhance user experience and create online opportunities for people worldwide. He sees this vision, focus, and interactivity in Weaviate, utilizing technology and data to push innovation toward all its sectors and customers. He direly wants to be a part of that through this role.

Working as a Machine Learning Engineer at Weaviate would enhance Robert's knowledge of working within an innovative company and provide beneficial insight into how he plans to build his future as his career advances.

Upon reading multiple articles online about Weaviate’s service space, Robert has gathered information about how Weaviate works to enhance its technologies and digitalization into practice with customers, employees, and clients. That is why he can see himself applying the knowledge and skill sets he has already acquired while being open to learning and practicing new techniques to assist Weaviate in continuing to achieve a more secure digitalization network for its customers.

Robert's interests and skills revolve around Python, machine learning, and deep learning, with a specialty in image processing/classification and utilizing natural language processing techniques.

Last year, he wrote his bachelor thesis on extracting predictive power from 1 million patient records in Maastricht via uncoded doctor's notes and a Siamese one-shot learning model to measure and make predictions on a patient's health diagnostic code (ICPC: International Primary Care Code). Writing this thesis has equipped him with the skills necessary to implement such a model for the hospital and has enhanced his Python and deep learning skills.

This past April, Robert completed his internship at BrightSites, a venture of Signify, as a software developer. BrightSites aims to utilize existing lighting infrastructure in cities to bring fiber optic internet speeds via radio wave transmitters installed in each light pole, thus creating a city-scale mesh network. During his seven months there, Robert directed and built a Python plugin tool from scratch to aid in designing such a network. His plugin boasts a network design algorithm that is currently being used by Solution Engineers at BrightSites, preventing them from continuing to build network topologies manually. Additionally, he has been implementing a reinforcement learning algorithm for a more advanced network design that takes routing, meshing, and network resilience into consideration. From building these tools, Robert hopes to transfer his skills in problem-solving, creativity, and software development to future projects and research at Weaviate.

The role at Weaviate stood out to Robert because of his excitement about data science, artificial intelligence, and software development with modern technologies. The company's networking and collaboration, new technologies and innovation, advancing skill sets, and real-world experience attract him the most to wanting to work for Weaviate. He believes he can succeed at Weaviate with hard work, time management, organizational planning, and teamwork.

Robert enjoys open source technologies because they foster transparency, collaboration, and innovation. The ability to view, modify, and distribute source code aligns with his philosophy of continuous improvement and community engagement. Robert appreciates how open source projects benefit from contributions and insights from a global community of developers, which leads to robust and innovative software solutions. This collaborative environment not only enhances security through peer reviews but also accelerates development cycles, allowing for rapid iterations and improvements.

Weaviate, being an open source vector database, is particularly appealing to Robert for these reasons. The transparency of Weaviate's codebase allows him to understand its inner workings and customize it to fit specific needs, which is crucial for his work in data science and artificial intelligence. The active community around Weaviate ensures that it is continuously evolving, with regular contributions that enhance its functionality and security. Additionally, the innovative use of vector databases in Weaviate aligns with Robert's interest in cutting-edge technologies that drive efficiency and optimization. The combination of open source principles and advanced technological capabilities makes Weaviate an ideal platform for Robert to leverage in his projects, contributing to and benefiting from the collective knowledge and advancements within the community.

Robert can start working full-time as early as possible. Additionally, he is flexible to move to any office location regardless of the city or work remotely. If there are any questions or a need

for more clarification on his background and experience, he can be reached via the email address or mobile phone number listed above. He appreciates the opportunity provided and hopes to hear back soon.

With Best Regards,

Robert Leal