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Subject: Junior Research Scientist Position

Dear Hiring Manager,

My name is Nrushad Joshi, and I am writing to apply for the Junior Research Scientist Position at FutureTech. I recently graduated from Indiana University with a degree in Intelligent Systems Engineering and a minor in Mathematics. My advanced coursework in mathematics, computer science, and data analytics, extensive academic research experience, and knowledge of state-of-the-art machine learning (ML) techniques and their real-world applications make me a great fit for this position.

My continuous engagement in research across various domains of artificial intelligence is a testament to my strong dedication to the field. During my sophomore year, I participated in the Sociomobility undergraduate research program at Michigan State University. My research aimed to advocate for the enhancement of automatic emergency braking systems by demonstrating lower collision rates in vehicles equipped with this technology. As a research assistant, I gained hands-on experience in training regression models with IBM SPSS and analyzing data in R. I also conducted a literature review and contributed to a publication, which was accepted for presentation at the Transportation Research Board Conference 2024.

While my Sociomobility experience provided a solid foundation in machine learning, my hands-on experience with deep learning was limited. This motivated me to pursue geospatial artificial intelligence research at Oak Ridge National Laboratory. As an intern, I fine-tuned language models and analyzed the impact of geography on Random Forest models. This project enhanced my understanding of model training paradigms, large language model architectures, and prompt engineering. Following my internship, I became a high-performance computing engineer at the laboratory, where I focus on two key areas: parallel computing and cluster management. Additionally, I contribute to my division's teaching and outreach initiatives, as well as the hiring process.

This position aligns perfectly with my goal of advancing in the ML field. The chance to engage in cutting-edge geospatial research, develop research applications, and exchange ideas with like-minded researchers has motivated me to apply. My technical, leadership, and communication skills have equipped me to contribute significantly to your team. Thank you for your consideration. I look forward to discussing this opportunity further.

Regards,
Nrushad Joshi