Dear Ikuro Sato-sensei,

I hope this message finds you well. My name is Krish Bakshi, and I am writing to express my sincere interest in contributing to the impactful and innovative research conducted at Sato Lab. Your pioneering work in pattern recognition, machine learning, image sensing, and autonomous driving has greatly inspired me, particularly your publications such as "Distribution-Aware State Update Rule for Modern Hopfield Networks" and "Egocentric Human Activities Recognition With Multimodal Interaction Sensing". These advancements resonate deeply with my academic goals and career aspirations in the field of computer vision and human-centered AI technologies.

Currently, I am pursuing a Bachelor’s degree in Computer Engineering at Savitribai Phule Pune University, where I have built a strong foundation in machine learning, deep learning, and computer vision. Through my academic and professional journey, I have gained practical experience in these areas. During my Data Science internship at Profcess, I designed an automated image preprocessing and OCR pipeline, which achieved 87% accuracy in extracting key details from images. Additionally, I contributed to projects involving time series forecasting and large-scale data analytics using Azure Databricks.

One of my recent projects, ImaginAIry, involved building a text-to-image generation app using Stable Diffusion XL, which integrates image processing techniques to create high-quality visual outputs in real-time. This experience, along with my Potato Disease Classification project, where I leveraged CNNs and OpenCV for plant disease detection, has equipped me with the necessary skills in image processing, deep learning frameworks like TensorFlow and PyTorch, and real-time data handling.

What excites me most about your lab is its focus on applying machine learning techniques to multimodal interaction sensing and pattern recognition, particularly in autonomous driving and human activity recognition. I am eager to seek my expertise in Python, PyTorch, TensorFlow, and statistical data analytics to further your groundbreaking research and contribute to meaningful advancements under your mentorship.

In addition, my Practical AI with Python certification demonstrates my continued commitment to expanding my knowledge of AI and machine learning. Furthermore, my Japanese proficiency (JLPT N3) qualifies me as a good candidate to fit effortlessly into your research environment and collaborate well in a Japanese academic setting.

Thank you for considering my application. I would be honored to discuss my qualifications and potential contributions further. I look forward to the opportunity to collaborate and learn under your esteemed guidance.

**Sincerely,**   
**Krish Bakshi**