

To whom it may concern

Mr. Swapnil Kumar has worked as an Artificial Intelligence Engineer at Propeterra from June 2025 to September 2025, where he was responsible for integrating various Large Language Models (LLMs) into a unified platform to improve the quality and relevance of data-driven responses. He has experience in developing pipeline models and actively uses tools such as Jira and Confluence. His work includes data collection using LLMs (using the non-biased strategy), training large-scale datasets on APIs and AWS cloud, and developing Python scripts to automate the retrieval of business email addresses and facilitate communication. He has also developed the entire framework, pipeline model, and Python code using Selenium, and also carried out LinkedIn scraping to extract the Real Estate Professionals data. In addition to that, he has developed the Python code integrated with hunter.io to extract the Real Estate Professionals data and send the automated emails to the Real Estate Professionals. He has also developed a tool and framework to do the data collection for the Commercial Real Estate property in Asia and the UK Council data. He has also carried out time series data analysis and heat map analysis, and applied the RAG (Retrieval-Augmented Generation) approach to interpret data, read PDF documents stored in repositories, generate visualizations, and support training processes. He also managed the entire GitHub platform for the organization, making sure the entire data collection is uploaded in the proper JSON format. He worked with GitHub-based CI/CD workflows, enabling efficient, consistent, and version-controlled deployment of cloud resources. He did adhere to best practices in version control (Git/GitHub), testing frameworks, and CI/CD pipelines to ensure reproducibility and performance in collaborative research environments. His involvement in software benchmarking, profiling, and code optimization has helped to improve the efficiency and sustainability of the work.

He led a team of 10 members (Artificial Intelligence Engineers, Data Engineers and Geospatial Engineers), coordinated and worked closely with them, and made sure the work was completed on time. He also helped me with the funding for the organization and with the launch of the Propeterra global digital product for the Real Estate Professionals and the general public to access the content of Commercial Real Estate properties across the globe. The platform is specially meant for Real Estate Professionals all across the globe to connect with each other. Additionally, Mr. Kumar was responsible for designing, developing, and deploying advanced machine learning models in close collaboration with analysts and engineers. His role involves exploring and analysing diverse datasets to uncover actionable insights, selecting and applying suitable AI and ML algorithms, and rigorously evaluating model accuracy and performance. He has ensured that the models are seamlessly integrated into production environments, maintaining high standards of reliability, scalability, and efficiency to deliver measurable and meaningful impact.

From my interactions with Swapnil, it is evident that he is a motivated and promising individual towards his career in research by incorporating all his engineering skills and intellectual ability. His unwavering focus on his work, combined with his strong analytical skills, makes him an ideal candidate. I strongly support Swapnil for his next job position. Should you have any questions, please do not hesitate to contact me at [cashell@propeterra.com](mailto:cashell@propeterra.com), [cashell@apipcorp.com](mailto:cashell@apipcorp.com). Thank you very much for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Lee M. Cashell". The signature is written in a cursive, flowing style.

Mr. Lee Cashell

CEO - Propeterra