## COVER LETTER

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Hiring Manager Strayos

Dear Hiring Manager,

I am writing to express my enthusiastic interest in the AI Developer Summer Internship at Strayos, as advertised on WashU's Skandilaris Internship Program website. As a Master's student in Computer Science at Washington University in St. Louis with a strong focus on artificial intelligence, I am deeply impressed by Strayos' innovative application of AI in the mining, quarrying, and construction industries, particularly the use of visual AI solutions for the entire mine to mill value chain

My coursework in Artificial Intelligence for Health and Deep Learning at WashU, combined with hands-on project experience, has provided me with a solid foundation in the core principles of AI. For instance, in my project on Multimodal Prediction of Alzheimer's Disease, I implemented deep learning models using TensorFlow/Keras for MRI image analysis and various machine learning techniques with Python's Scikit-learn and XGBoost for clinical data processing. This project honed my skills in developing and integrating AI models to solve complex problems.

Furthermore, my experience in developing AI agents for games like Connect 4 and Lost Cities demonstrates my ability to implement intelligent algorithms using Java. My current project on Datacenter Cooling Optimization involves utilizing deep reinforcement learning algorithms (DDQN, PPO, SAC) in Python to improve energy efficiency, showcasing my coding skills and my capacity to apply advanced AI techniques to real-world optimization challenges.

Beyond my AI-specific skills, I have practical experience in software development, as demonstrated by my Interactive Storybook project built using Vue.js, Node.js, and MongoDB, integrating the OpenAI API for dynamic content generation. This project highlights my ability to work with full-stack technologies and develop user-facing applications, aligning with the "Product Development" skill mentioned in the internship description.

As a member of the Washington University community, I was also interested to learn about the existing WashU network at Strayos. I am confident that my academic background, project experience, and genuine enthusiasm for AI make me a strong candidate for this internship. I am eager to contribute to Strayos' mission of accelerating sustainable mining through AI-powered insights and to further develop my skills in a dynamic and innovative environment.

Thank you for considering my application. I welcome the opportunity to discuss my qualifications further in an interview.

Sincerely,

Aadarsha Gopala Reddy