Stephen Gerkin 123 Developer Lane Atlanta, GA 30303

December 14, 2020

Dr. Marcus Reems Arrow Medical Imaging, Inc. 456 Imaging St. Atlanta, GA 30303

Subject: Chest X-Ray Diagnosis and Classification by Machine Learning

Dear Dr. Reems,

Chest X-Ray imaging is a major part of your company's business model, servicing several clients ranging from small practices to large hospital settings. As you well know, these scans can be incredibly helpful to provide information to practitioners at a low price; however, as the need for these scans rises with current world events, your company is likely to fall under the strain of an increased load with little to no way to adapt to this change short of hiring additional, expensive radiologists for analyzing these scans.

In the following paper, I present a prospective prototype to your company to create a machine learning model for automatic analysis and classification of chest X-rays to assist physicians within your own company and as a means of contracting this service to your clients. This development and model could provide diagnosis within mere seconds of a scan of a patient, increasing the efficiency of evaluating these scans and lowering the overhead of maintaining a large, specialized staff that focuses entirely on these radiology studies.

Additionally, this model can potentially be adapted to work with other forms of radiologic scans, further lowering the costs to your business and improving the accuracy and reliability of your services to your clients.

Thank you for your time.

Sincerely,

Stephen Gerkin