

MACHINE LEARNING IN OPTOMETRY

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ABSTRACT

Our previous works have shown the importance of incorporating mathematical models to provide objective quantification in clinical settings. This includes aiding optometrists to make clinical decision based on validated scientific data, not by mere hunches or instincts. We have demonstrated that with the right tool, the application of machine learning – a branch of artificial intelligence – can be leveraged to benefit areas in healthcare including optometry. The aim of this presentation is to provide introductory knowledge to the audience who have little or no knowledge of machine learning with examples of its applications in optometry. To better understand the machine learning concept, hypothetical data of glaucoma cases will be presented. The applications of machine learning in clinical and biomedical domains will be briefly demonstrated based on author's own research and recent examples available from the literature.