

# Pneumonia Detection Using CNN

Dr. Mrunal Pathak<sup>1</sup>, Suvidh Bhurat<sup>2</sup>, Rohan Bhosale<sup>3</sup>, Prathmesh Pawar<sup>4</sup>

Assistant Professor, Department of Information Technology

Students, Department of Information Technology<sup>2,3,4</sup>

AISSMS Institute of Information Technology, Pune, Maharashtra, India

**Abstract:** *The medical field is most sensitive domain of all the fields. Cause is deals with the human body human body parts. As the people are become advanced day by day and they move towards automation for their comfort. The machine is also being smarter and accurate due to the availability of a large amount of data and fast computing power. So as a result machine learning becomes an important pillar in life. People now become more reliable to machine than man decision. So, here we try to build machine learning model to detect pneumonia. Pneumonia is the leading death of cause among young children and one of the top major causes worldwide. The pneumonia is detected using examine of chest X-Ray radiograph by highly-trained specialists. This process is tedious and often leads to a disagreement between radiologists. Analyzing chest x-rays is a difficult task and requires precision. Pneumonia, a symptom of Covid-19, is a life-threatening condition that affects the lungs. We aim at designing a highly efficient system to predict a user suffers from Pneumonia by analyzing the patient's chest X-ray images and increasing the accuracy of the system by use of CNN.*

**Keywords:** VGG16, Keras, Tensors, Matplotlib, Flask

## REFERENCES

- [1]. S. M. Metev and V. P. Veiko, Laser Assisted Microtechnology, 2nd ed., R. M. Osgood, Jr., Ed. Berlin, Germany: Springer-Verlag, 1998.
- [2]. J. Breckling, Ed., The Analysis of Directional Time Series: Applications to Wind Speed and Direction, ser. Lecture Notes in Statistics. Berlin, Germany: Springer, 1989, vol. 61.
- [3]. S. Zhang, C. Zhu, J. K. O. Sin, and P. K. T. Mok, "A novel ultrathin elevated channel low-temperature poly-Si TFT," IEEE Electron Device Lett., vol. 20, pp. 569–571, Nov. 1999.
- [4]. M. Wegmuller, J. P. von der Weid, P. Oberson, and N. Gisin, "High resolution fiber distributed measurements with coherent OFDR," in Proc. ECOC'00, 2000, paper 11.3.4, p. 109.
- [5]. R. E. Sorace, V. S. Reinhardt, and S. A. Vaughn, "High-speed digital-to-RF converter," U.S. Patent 5 668 842, Sept. 16, 1997. (2002) The IEEE website. [Online]. Available: <http://www.ieee.org/>
- [6]. M. Shell. (2002) IEEEtran homepage on CTAN. [Online]. Available: [http://www.ctan.org/tex-archive/macros/latex/contrib/IEEEtran/FLEXChip Signal Processor \(MC68175/D\), Motorola, 1996](http://www.ctan.org/tex-archive/macros/latex/contrib/IEEEtran/FLEXChip Signal Processor (MC68175/D), Motorola, 1996).
- [7]. "PDCA12-70 data sheet," Opto Speed SA, Mezzovico, Switzerland.
- [8]. A. Karnik, "Performance of TCP congestion control with rate feedback: TCP/ABR and rate adaptive TCP/IP," M. Eng. thesis, Indian Institute of Science, Bangalore, India, Jan. 1999.
- [9]. J. Padhye, V. Firoiu, and D. Towsley, "A stochastic model of TCP Reno congestion avoidance and control," Univ. of Massachusetts, Amherst, MA, CMPSCI Tech. Rep. 99-02, 1999.
- [10]. Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specification, IEEE Std. 802.11, 1997.