International Journal Of Multidisciplinary Research In Science, Engineering and Technology (IJMRSET)

| ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 4.988

| Volume 4, Issue 5, May 2021 |

Multiple Layers of Features with Many Parameters for the Phone Recognition

Sameera Reddy[1], Akshay Tripati[2]

Assistant Professor, Gandhi Institute of Technology, Andhra Pradesh, India[1]

Professor, Gandhi Institute of Technology, Andhra Pradesh, India [2]

ABSTRACT: Some major challenges that the deep learning technology is facing un doubtedly are the scaling of computations, optimization of the parameters of deep neural network, designing and learning approaches. A detailed investigation in various complex deep neural network models is also a big challenge to this potential research area. The combination of fuzzy logic with deep neural network is another provoking and demanding area which needs to be explored.

KEYWORDS: Machine Learning, parameters, layers

I. OVERVIEW

[2] proposed deep learning network, which contains multiple layers of features with many parameters for the phone recognition. They replaced Gaussian mixture models and used TIMITT dataset. They trained deep learning networks as a multilayered genera- tive model. After designing features of pre-trained deep network, the next step was to perform discriminative fine tuning with the back propagation, distribution so as to adjust the features for the better prediction of probability distribution.

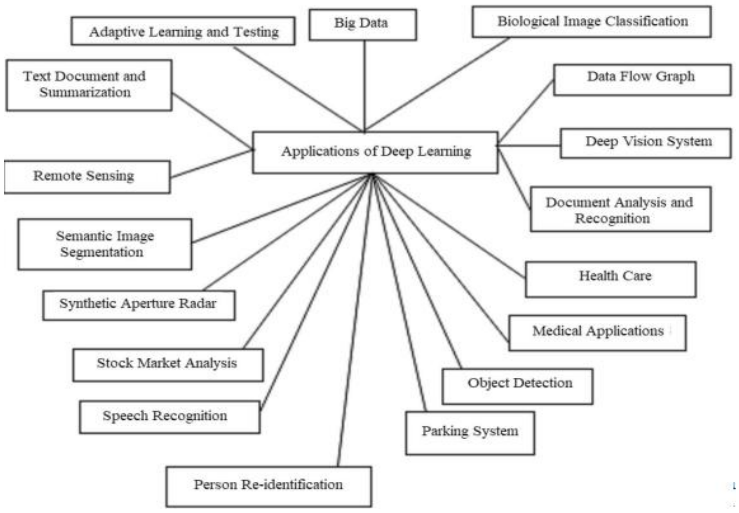

Figure 1: Applications of deep learning

[3] presented in a very systematically way the review of the speech generation approaches. They created interest in the mind of readers to learn the existing paramet- ric speech generation methods and also stimulated for the generation of developing new methods. They concluded in their findings that for parametric speech recognition, RBM and DBN which are called deep joint models and CRBM and DNN are better to represent the complicated and nonlinear relations. [4] presented a unique method for the acoustic modeling. In the presence of noise, they developed the system for the speech recognition by using deep neural network. This is the big challenge for the researchers for developing speech recognition system with the presence of noise speech signals. For their experiment, they used CNN and the recurrent architecture. CNN was used for the acoustic modeling and recurrent method with connection- ist and

| ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 4.988

| Volume 4, Issue 5, May 2021 |

temporary classification was used for the sequential modeling. Their method worked well as compared to the classical model such as HMM with the BioChaves datasets.

- Adaptive Testing

[6] presented a novel approach to integrate adaptive learning rate and using Laplacian score for the updating of the weights. They considered that the neurons are important for enhancing the weights and the learning rate. These can be taken as a function of the parameter and the operations can be possible on the basis of the error gradient. Laplacian score of the neuron can be used for the incoming weights and to improve the complexities in catching the optimum value of the learn- ing rate. This was implemented on the benchmark datasets with linear activation function and the max out. The work proved out to achieve an increase in classification accu- racy. This method had a limitation that they could not use Laplacian score in an online mode. They recommended that it is better to go for the 'Exponential LP' with Recti- fied Linear activation function when the data was available in the streams and the batches, respectively.

[8]proposed a new method for adaptive testing based on the deep learning. Without manual intervention, these techniques can extract the features from the data automatically. For their work, they used DNN which proved higher accuracies rate for the failure and pass prediction. By using the features from the DNN, they developed two applications, i.e. partial testing and dynamic test ordering. These applications were used for the decision making such as pass or failure and for the dynamic test ordering. Experiments results proved improvements in accuracy and effectiveness. [14] designed a disciplined life process based on the deep learning. They designed successfully a W model that is dependent on the Software process improvement and capability determination and used DNN for the achievement of the task in addition with the traditional automotive software industry. The improvement in the W model really pushed them for achieving future aspects like fully autonomous driving.

[10] presented the applications and the tools for implementing deep neural networks in the automotive industry. They focused on the use of CNN and the computer vision uses cases. They used labeled datasets.

II. CONCLUSION

The main contribution of this paper was the creation of the automotive dataset that helps the users to learn and automatically identify and examine the vehicle properties. They analyzed both the training time and the accuracy of the classifiers and reported that during the manufacturing process, the trained classifier were efficient and effective.

REFERENCES

1. Anitha Eemani, "A Comprehensive Review on The History of Wireless Networks", International Journal of Scientific Research in Science and Technology, Volume 7, Issue 4, July-August2020
2. Anitha Eemani, "A Comprehensive Study on Relocating the Learning Knowledge", International Journal Of Multidisciplinary Research In Science,Engineering and Technology (IJMRSET), Volume 2, Issue 7, July 2019
3. Anitha Eemani, "Future Trends, Current Developments in Network Security and Need for Key Management in Cloud", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 6, Issue 10, October 2018
4. Anitha Eemani, "PNC Architecture of Security Services", Journal of Advances and Scholarly Researches in Allied Education, Vol. 13, Issue No. 2, July-2017
5. Anitha Eemani, "A Study on The Usage of Deep Learning in Artificial Intelligence and Big Data", International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT), Volume 5, Issue 6, November-December 2019.
6. Anitha Eemani, "Benefits of Wireless Data Services and Wireless Technologies", International Journal of Physical Education and Sports Sciences, Vol. 14, Issue No. 01, January-2019
7. Anitha Eemani, "A Study on Encryption and Confidentiality in WLAN", InternationalJournal of Advanced Research in Electrical, Electronics and Instrumentation Engineering(IJAREEIE), Volume 9, Issue 11, November 2020
8. Anitha Eemani, "A Comprehensive Review on Network Security Tools", Journal of Advances in Science and Technology, Vol. 11, Issue No. 22, May-2016
9. Anitha Eemani, "Achieving Network Security and Security Mechanisms at Networking Layers", International Journal of Information Technology and Management", Vol. 11, Issue No. 17, November-2016
10. Anitha Eemani, "Network Optimization and Evolution to Bigdata Analytics Techniques", International Journal of Innovative Research in Science, Engineering and Technology, Vol. 8, Issue 1, January 2019

| ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 4.988

| Volume 4, Issue 5, May 2021 |

11. Bhagya Rekha Kalukurthi, "Risk Analysis of Putting Attacks into Perspective andConducting a Vulnerability Assessment", International Journal of Scientific Research & Engineering Trends, Volume 7, Issue 1, Jan-Feb-2021.
12. Bhagya Rekha Kalukurthi, "A Comprehensive Review on Machine Learning and Deep Learning", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 8, Issue 6, June 2019
13. Bhagya Rekha Kalukurthi, "Regulatory Compliance and Supervision towards Artificial Intelligence", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 7, Issue 12, December 2019
14. Bhagya Rekha Kalukurthi, "A REVIEW ON THE KEY PROPERTIES OF DATA MINING", Wutan Huatan Jisuan Jishu, Volume XIV, Issue IX, SEPTEMBER2018
15. Bhagya Rekha Kalukurthi, " IMPLEMENTATION OF BIG DATA ANALYTICS AND BIG DATAGOVERNANCE", The International journal of analytical and experimental modal analysis, Volume VII, Issue I, May2015
16. Bhagya Rekha Kalukurthi, "A Comprehensive Review on Challenges and Types of Big Data", International Journal of Innovative Research in Science, Engineering and Technology, Vol. 7, Issue 1, January 2018
17. Bhagya Rekha Kalukurthi, "Big Data Classification and Methods of Data Mining, Big Data", International Journal of Scientific Research in Science, Engineering and Technology, Volume 3, Issue 5, July-August-2017
18. Bhagya Rekha Kalukurthi, "Security Vulnerabilities, Security Threats, and Advance Network Security Policies", Journal of Interdisciplinary Cycle Research, Volume VI, Issue I, Jan- June2014
19. Bhagya Rekha Kalukurthi, "A Study on The Big Data Characteristics", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Volume 1, Issue 1, July-August 2016
20. Bhagya Rekha Kalukurthi, "A Comprehensive Overview on WLAN Security Exploits and WLAN Security for 802.11", "International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering", Vol. 4, Issue 11, November 2015
21. Bhagya Rekha Kalukurthi, "Ml Platform Architecture and Components of Cloud-Based Ml Framework", "International Journal Of Multidisciplinary Research In Science, Engineering and Technology (IJMRSET)", Volume 3, Issue 6, June 2020
22. Bhagya Rekha Kalukurthi, "SOLVING MULTIPLEOPTIMIZATION PROBLEMS USINGHADOOP AND THE ROLEOFBIGDATAANALYTICSIN OPTICALNETWORKS", The International journal of analytical and experimental modal analysis, Volume XIII, Issue I, January2021
23. Bhagya Rekha Kalukurthi, "Data Mining Strategy for Discovering Intriguing Patterns and Challenges with Bigdata for Global Pulse Development", International Journal of Scientific Research in Science and Technology, Volume 3, Issue 3, March-April2017
24. Malyadri. K, "Architecture and Components of Cloud-Based ML Framework", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 8, Issue 1, January 2019
25. Malyadri. K, "An Overview towards the Different Types of Security Attacks", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 2, Issue 8, August 2014
26. Malyadri. K, "Security Threats, Security Vulnerabilities and Advance Network Security Policies", International Journal of Innovative Research in Science, Engineering and Technology, Vol. 2, Issue 9, September 2013
27. Malyadri. K, "Need for Key Management in Cloud and Comparison of Various Encryption Algorithm", International Journal of Scientific Research in Computer Science, Engineering and Information Technology , volume 1, issue 1, July-August 2016
28. Malyadri. K, "Cloud-Based Ml Framework Working with Analytic Tools", International Journal of Scientific Research in Science and Technology, Volume 6, Issue 6, November-December-2019
29. Malyadri. K, "Integration of Appropriate Analytic tools towards Mobile Technology Development", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 6, Issue 6, June 2018
30. Malyadri. K,"A STUDY ON EXPERIENCES ANDLIMITATIONS OF MOBILE COMMUNICATION", Alochana Chakra Journal, Volume VI, Issue VIII, August2017
31. Malyadri. K, PUSHPAVATHI MANNAVA, "A COMPREHENSIVE REVIEW ON MOBILE E-SERVICETECHNOLOGY", Alochana Chakra Journal, Volume IX, Issue II, February 2020
32. Malyadri. K,"CHALLENGES CONCERNING MOBILEDEVELOPMENT AND MODEL-DRIVEN DEVELOPMENT OF MOBILE APPS", Airo International Research Journal, volume XVI, Nov 2018
33. Malyadri. K, "Architectures and Needs in Advanced Wireless Technologies", International Journal for Scientific Research & Development, Vol. 8, Issue 7, 2020
34. Malyadri, N. Surya Teja, "Related technologies and the role of mobile app development life cycle", International Journal of Research and Applications, Volume 5, Issue 17, Jan-Mar 2018.
35. Malyadri K, Surya Teja N, "Key characteristics of mobile applications and trends in mobile app Industry", International Journal of Research and Applications, Volume 7, Issue 25, Jan-Mar 2020.

| ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 4.988

| Volume 4, Issue 5, May 2021 |

36. Rakesh Rojanala, "A STUDY ON BIG DATA-ORIENTED STREAM DATA MINING AND STREAMED DATA MANAGEMENT", The International journal of analytical and experimental modal analysis, Volume X, Issue III, March2018
37. Rakesh Rojanala, "Algorithms, Models and Applications on Artificial Intelligence", International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT) ", Volume 5, Issue 4, July-August2019
38. Rakesh Rojanala, "Generic Working of an Artificial Neuron and Its Output Mathematical Representation", "International Journal of Innovative Research in Science, Engineering and Technology", Vol. 8, Issue 1, January 2019
39. Rakesh Rojanala, "An Overview of Intrusion Detection System and the Role of Data Mining in Information Security", "International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering", Vol. 6, Issue 3, March 2017
40. Rakesh Rojanala, "Cloud-Based ML Framework Built Using Apache Ecosystem", "International Journal of Scientific Research in Science, Engineering and Technology", Volume 7, Issue 1, January-February2020
41. Rakesh Rojanala, "AN OVERVIEW ON CLOUD COMPUTING MODELS AND CLOUD DELIVERY MODELS", The International journal of analytical and experimental modal analysis, VolumeIV, Issue I,JAN-JUNE2012
42. Rakesh Rojanala, "Cloud Computing Characteristics and Deployment of Big Data Analytics in The Cloud", International Journal of Scientific Research in Science and Technology, Volume VIII, Issue II, March-April2014
43. Rakesh Rojanala, "CLOUD COMPUTING ARCHITECTURAL FRAMEWORK", Journal of Interdisciplinary Cycle Research, Volume V, Issue I, Jan- June2013
44. Rakesh Rojanala, "A COMPREHENSIVE STUDY ON THECHALLENGES OF STREAM DATA MINING AND BIG DATA-ORIENTED STREAM DATAMINING", The International journal of analytical and experimental modal analysis, Volume VII, Issue II, July-December2015
45. Rakesh Rojanala, "Machine Learning: Intersection of Statistics and Computer Science", "International Journal of Innovative Research in Computer and Communication Engineering", Vol. 5, Issue 8, August 2017
46. Rakesh Rojanala, "Components of Data Mining and Big Data Analytics in Intra-Data Center Networks", "International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering", Vol. 5, Issue 7, July 2016
47. Yeshwanth Valaboju, "IOT Communication Technologies and Future of Internet of Things", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Volume 2, Issue 6, November-December2017
48. Yeshwanth Valaboju, "Design Models and Components of Artificial Intelligence", International Journal of Scientific Research in Science, Engineering and Technology, Volume 7, Issue 6, November-December2020
49. Yeshwanth Valaboju, "A Study on Cryptosystem Types and Cryptographic Principles", "International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering", Vol. 5, Issue 6, June 2016
50. Yeshwanth Valaboju, "Capabilities and Key Benefits of Sap NetWeaver Gateway", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 7, Issue 1, January 2019
51. Yeshwanth Valaboju, "A COMPREHENSIVE STUDY ON IOT ARCHITECTURES AND IOT SECURITY", Parishodh Journal, Volume VIII, Issue X, October2019
52. Yeshwanth Valaboju, "AN OVERVIEW ON THE TYPES OF PASSWORD AND DOS ATTACKS", Journal of Interdisciplinary Cycle Research, Volume IX, Issue XI, November2018
53. Yeshwanth Valaboju, "A Review on The Database Security Requirements and Guidelines", International Journal of Scientific Research in Science and Technology, Volume 3, Issue 6, July-August2017
54. Yeshwanth Valaboju, "AN OVERVIEW ON SAP FIORI DESIGN PRINCIPLES AND FIORI ARCHITECTURE FOR ANALYTICAL
55. APPLICATIONS", The International journal of analytical and experimental modal analysis, Volume X, Issue IX, September2018
56. Yeshwanth Valaboju, "A LITERATURE REVIEW ON NEURAL NETWORKARCHITECTURES", Journal of Interdisciplinary Cycle Research, Volume VII, Issue II, December2015
57. Yeshwanth Valaboju, "A Study on SAP Fiori Apps and Fiori Design Principles", "International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)", Volume 9, Issue 6, June 2020
58. Yeshwanth Valaboju, "Routing and Vulnerabilities in MANETS", "International Journal Of Multidisciplinary Research In Science, Engineering and Technology (IJMRSET)", Volume 1, Issue 2, December 2018
59. ANUMANDLA MOUNIKA, "THREATS, OPPORTUNITIES OF THE CLOUD AND PROVISION OF APPLICATION SERVICES", JASC: Journal of Applied Science and Computations, Volume 2, Issue 1, Jan-June2015
60. ANUMANDLA MOUNIKA, "DATA SECURITY IN THE CLOUD", The International journal of analytical and experimental modal analysis, Volume 1, Issue 4, July-December-2012
61. ANUMANDLA MOUNIKA, "CLOUD COMPUTING INFRASTRUCTURE AND CLOUD ADOPTION CHALLENGES", Journal of Interdisciplinary Cycle Research, Volume VI, Issue II, July-December2014

| ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 4.988

| Volume 4, Issue 5, May 2021 |

62. ANUMANDLA MOUNIKA, "AN OVERVIEW ON THE ARCHITECTURAL COMPONENTS OF CLOUD", International Journal of Research, Volume 6, Issue 12, December2017
63. ANUMANDLA MOUNIKA, "PROCESS OF MIGRATING INTO A CLOUD AND ISSUES IN CLOUD COMPUTING", Journal of Interdisciplinary Cycle Research, Volume 2, Issue 1, January-June-2010
64. ANUMANDLA MOUNIKA, "SECURITY AND PRIVACY ISSUE TOWARDS DATA SECURITY IN CLOUD COMPUTING", JASC: Journal of Applied Science and Computations, Volume 1, Issue 1, January-June2014
65. ANUMANDLA MOUNIKA, "TECHNICAL BENEFITS AND ARCHITECTING CLOUD APPLICATIONS IN THE AWS CLOUD", Parishodh Journal, Volume VIII, Issue III, March-2019
66. ANUMANDLA MOUNIKA, "A STUDY ON CLOUD COMPUTING STRATEGY PLANNING AND SLA MANAGEMENT IN CLOUD", International Journal of Research, Volume 7, Issue VII, JULY2018
67. ANUMANDLA MOUNIKA, "A REVIEW ON CLOUD COMPUTING PLATFORMS AND ENTERPRISE CLOUD COMPUTING PARADIGM", The International journal of analytical and experimental modal analysis, Volume III, Issue II, July-November-2011
68. ANUMANDLA MOUNIKA, "Developments of Intelligent Machines and the Current State of AI", International Journal Of Multidisciplinary Research In Science, Engineering and Technology, Volume 3, Issue 12, December 2020
69. ANUMANDLA MOUNIKA, "Utilization of Artificial Intelligence in Different Business Sectors", International Journal Of Multidisciplinary Research In Science, Engineering and Technology, Volume 3, Issue 3, March 2020