

An Android Application for Indian Currency Recognition and Detection for Visually Impaired People

Dhananjay V. Pawar, Mansi N. Sharma, Sachin N. Pisar

Department of Computer Engineering

Sinhgad Institute of Technology, Lonavla, Maharashtra, India

Abstract: The currency recognition system using TensorFlow is an innovative application of deep learning technology that can recognize and classify different currencies from around the world. This system uses a convolutional neural network (CNN) to extract meaningful features from banknote images, and then a classifier to predict the currency type. The training of the system is performed on a large dataset of banknote images, and the system achieves high accuracy in recognizing different currencies. The system has a wide range of potential applications for visually impaired people, including ATM machines, vending machines, and self-service kiosks, where accurate and efficient currency recognition is essential. The implementation of the system using TensorFlow provides a scalable and efficient solution that can be easily deployed on various platforms. The currency recognition system using TensorFlow is an exciting and valuable application of deep learning technology. It has the potential to revolutionize the way we handle cash transactions and improve the overall efficiency of financial systems. This abstract provides an overview of the key features and potential applications of the system, highlighting its potential to benefit a wide range of industries and users..

Keywords: Deep Learning, Currency Recognition, Convolutional Neural Network, TensorFlow, Image Extraction

REFERENCES

- [1] Ahmed Yousry, Mohamed Taha, Mazen Selim (2018, January). Currency Recognition System for Blind People using ORB Algorithm. In International Arab Journal of Information Technology.
- [2] Shweta Yadav, Zulfikar Ali Ansari, Kaushiki Gautam Singh (2020, May). Currency Detection for Visually Impaired People. In Journal of Emerging Technologies and Innovative Research (Volume 7, Issue 5)
- [3] Pratiksha Ganjave, Rushikesh Markad, Gaurav Rasal, Yash Kalekar (2021, November). Currency Detector for Visually Impaired (Study of the systems which identifies Indian Currency for Blind People). In International Journal of Engineering Research and Technology (Volume 10, Issue 11).
- [4] D. Alekhya, G. DeviSurya Prabha, G. VenkataDurga Rao (2014, January). Fake Currency Detection System Using Image Processing and Other Standard Methods. In International Journal of Research in Computer and Communication Technology (Volume 3, Issue 1).
- [5] Devashree Patwardhan, Swarali Namjoshi, Vrinda Valunj, Pratibha Shikhare (2017, April). Currency Recognition System Using Image Processing. In International Journal of Science and Research (Volume 6, Issue 4).
- [6] Nayna Ramvanshi, Harshada Shelke, Damini Tile, Vaishnavi Badgujar, Prof. S. N. Bhadane (2022, May). Currency Recognition System using Image Processing. In International Journal of Advanced Research in Science, Communication and Technology (Volume 2, Issue 6).
- [7] Ila Krishna Shrivastava, Trupti K. Pawar, Nidhi Agrawal, Shruti Wadhe (2018, April). Currency Recognition System. In International Journal of Creative Research Thoughts (Volume 6, Issue 2).
- [8] Swati Sagar, Shaheen Mondal Apoorva Seth, Roopvati Shah, Akanksha Deshpande (2016, April). An Android Application for Indian Currency Recognition and Authentication for Blind. In International Journal of Computer Science and Network (Volume 5, Issue 2).
- [9] Ingulkar Ashwini Suresh, Prof. P.P.Narwade (2016, June). Indian Currency Recognition and Verification Using Image Processing. In International Research Journal of Engineering and Technology (Volume 3, Issue 6)