

# Leveraging Face Recognition Technology for Secure ATM Transaction

Mehfooz Ur Rehman<sup>1</sup> and H Jayamangala<sup>2</sup>

PG Student, Department of Computer Applications<sup>1</sup>

Assistant Professor, Department of Computer Applications<sup>2</sup>

Vels Institute of Science Technology and Advanced Studies, Pallavaram, Chennai, India

22304260@vistas.ac.in and jayamangala.scs@velsuniv.ac.in

**Abstract:** ATM or Automated Teller Machines are widely used by people nowadays. Performing cash withdrawal transactions with ATMs is increasing day by day. ATMs are a very important device throughout the world. The existing conventional ATM is vulnerable to crimes because of the rapid technology development. A total of 270,000 reports have been reported regarding debit card fraud and this was the most reported form of identity theft in 2021. A secure and efficient ATM is needed to increase the overall experience, usability, and convenience of the transaction at the ATM. In today's world, the area of computer vision is advancing at a breakneck pace. The recent progress in biometric identification techniques, including fingerprinting, retina scanning, and facial recognition has made a great effort to rescue the unsafe situation at the ATM. Specifically, the goal of this project is to give a computer vision method to solve the security risk associated with accessing ATM machines. This project proposes an automatic teller machine security model that uses electronic facial recognition using Deep Convolutional Neural Network. If this technology becomes widely used, faces would be protected as well as their accounts. Face Verification Clickbait Link will be generated and sent to bank account holders to verify the identity of unauthorized users through some dedicated artificial intelligent agents, for remote certification. However, it is obvious that man's biometric features cannot be replicated, this proposal will go a long way to solve the problem of account safety making it possible for the actual account owner alone to have access to his accounts. This eliminates the possibility of fraud resulting from ATM card theft and copying. The experimental results on real-time datasets demonstrate the superior performance of the proposed approach over state-of-the-art deep learning techniques in terms of both learning efficiency and matching accuracy

**Keywords:** ATM card