

# Cryptocurrency Price Prediction using Machine Learning

Nandan S<sup>1</sup> and Usha Sree R<sup>2</sup>

Student MCA, IVth Semester<sup>1</sup>

Assistant Professor, Department of MCA<sup>2</sup>

Dayananda Sagar Academy of Technology and Management, Udayapura, Bangalore, Karnataka, India

nandan7198@gmail.com and ushashree-mca@dsatm.edu.in

**Abstract:** *Cryptocurrency price prediction is a complex task due to the volatile and dynamic nature of the market. To tackle this challenge, a study was conducted to compare the effectiveness of two popular machine learning models: Long Short Term Memory (LSTM) and Gated Recurrent Unit (GRU). These models are designed to capture temporal dependencies in sequential data, making them suitable for predicting price movements based on historical trends. The study utilized historical price data, specifically focusing on the closing prices of various cryptocurrencies. The data was collected using the yfinance library, a tool that provides easy access to financial data from Yahoo Finance. By concentrating on closing prices, the study aimed to simplify the prediction task and improve the accuracy of the models.*

**Keywords:** Cryptocurrency, GRU, LSTM, Machine Learning, Price Prediction