

INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with UNIVERSITY OF WESTMINSTER

DataLan

Decentralised Data Marketplace Using AutoML

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ABSTRACT

In today's dynamic business world, Small and Medium Enterprises (SMEs) face challenges in automating customer service and securing customer data. E-businesses require quality customer service and product quality assurance, but the virtual nature of e-business makes it challenging to achieve. This research proposes an open, decentralized data marketplace based on AutoML as a solution in the customer service domain.

By implementing this proposed platform, SMEs can develop their customer service skills and obtain sufficient data. A key research component is a transparent and automated customer service that uses Blockchain technology for fair data exchange. The research aims to build a lightweight, secure data trading platform for SMEs to integrate customer services, leading to increased revenue and customer satisfaction for small businesses. The methodology of the study involves developing and evaluating a prototype system.

Simulation results show a 78.57% decrease in latency in the platform and comparatively low gas fees, which makes it scalable and efficient. The research concludes that the proposed architecture can potentially enhance customer service capabilities for SMEs and improve data exchange in the e-business environment.

Subject Descriptors:

Computing methodologies \rightarrow Machine learning \rightarrow Machine learning algorithms \rightarrow Automated Machine Learning (AutoML)

Distributed computing \rightarrow Decentralized systems

Applied computing \rightarrow Electronic commerce \rightarrow Automated Customer Service

Security and privacy \rightarrow Cryptography \rightarrow Blockchain

Keywords - Automated Customer Service, Blockchain, AutoML, Decentralised Data Marketplaces, Data Exchange, Homomorphic Encryption.