Patent Search

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Inventor

Name	Address	Country
Dr. T Pratyusha, Associate Professor / Department of CSE, CMR Institute of Technology.	CMR Institute of Technology, Kandlakoya, Medchal, Hyderabad, Telangana-501401	India
Dr. SambasivaRao Baragada, Assistant Professor / Department of Computer Science, Babu Jagjivan Ram Government Degree College.	Babu Jagjivan Ram Government Degree College, Narayanguda, Hyderabad, Telangana-500029	India
V.S.Pallavi, Assistant Professor / Department of Computer Science, Telangana Mahila Viswavidyalayam.	Telangana Mahila Viswavidyalayam, Koti, Kachiguda, Hyderabad, Telangana-50009	India
Dr. N. Uday Bhaskar, Assistant Professor / Department of Computer Science, Government College (Autonomous).	Government College (Autonomous), Anantapur, Andhra Pradesh-515001	India
Dr. A Siva Prasad, Assistant Professor / Department of Computer Science, Government Degree College	Government Degree College, Tekkali, Srikakulam, Andhra Pradesh-532201	India
N.M Deepika, Assistant Professor / Department of CSE, Institute of Aeronautical Engineering.	Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana-500043.	India
Dr.Animoni Nagaraju, Associate Professor / Department of Mathematics and CSE, Malla Reddy Institute of Technology and Science	Malla Reddy Institute of Technology and Science, Maisammaguda, Dhullapally, Hyderabad, Telangana-500100	India
Adulapuram Pradeep, Assistant Professor / Department of CSE, TKR College of Engineering and Technology.	TKR College of Engineering and Technology, Ranga Reddy, Hyderabad, Telangana-500097.	India

Applicant

Name	Address	Country
Dr. T Pratyusha, Associate Professor / Department of CSE, CMR Institute of Technology.	CMR Institute of Technology, Kandlakoya, Medchal, Hyderabad, Telangana-501401	India
Dr. SambasivaRao Baragada, Assistant Professor / Department of Computer Science, Babu Jagjivan Ram Government Degree College.	Babu Jagjivan Ram Government Degree College, Narayanguda, Hyderabad, Telangana-500029	India
V.S.Pallavi, Assistant Professor / Department of Computer Science, Telangana Mahila Viswavidyalayam.	Telangana Mahila Viswavidyalayam, Koti, Kachiguda, Hyderabad, Telangana-50009	India
Dr. N. Uday Bhaskar, Assistant Professor / Department of Computer Science, Government College (Autonomous).	Government College (Autonomous), Anantapur, Andhra Pradesh-515001	India
Dr. A Siva Prasad, Assistant Professor / Department of Computer Science, Government Degree College	Government Degree College, Tekkali, Srikakulam, Andhra Pradesh-532201	India
N.M Deepika, Assistant Professor / Department of CSE, Institute of Aeronautical Engineering.	Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana-500043.	India
Dr.Animoni Nagaraju, Associate Professor / Department of Mathematics and CSE, Malla Reddy Institute of Technology and Science	Malla Reddy Institute of Technology and Science, Maisammaguda, Dhullapally, Hyderabad, Telangana-500100	India
Adulapuram Pradeep, Assistant Professor / Department of CSE, TKR College of Engineering and Technology.	TKR College of Engineering and Technology, Ranga Reddy, Hyderabad, Telangana-500097.	India

Abstract:

Abstract An IT security transmission technique is the foundation of heterogeneous integrated network resource management. It solves the problems associated with variability and complexity of managing resources in IoT devices. The method uses cloud computing principles to handle resources safely and effectively. The algorithr notable benefits are reduced computation mistakes and enhanced security. The algorithm's efficiency in managing resources within heterogeneous integrated netwo demonstrated through a simulated experiment. It provides a hybrid collaborative recommendation approach driven by security. It combines latent factor frameworks collaborative frameworks to own user-service connection associations and user-user as well as service-service combination interaction. To hasten neighbour lookups users' privacy, we employ a local sensitive hash (LSH) method. As can be seen from the results of the experiments, the proposed strategy not only increases the accur predictions but also ensures the safety of sensitive data. The simulation study considerably reduced calculation mistakes and enhanced security performance. Althou algorithmic error was reduced by 20%, the security effectiveness remained more than 90%. These findings have implications for the development of safer and more e algorithms for managing the resources of Internet of Things devices across diverse, interconnected networks.

Complete Specification

Description:Improving Security Systems over IOT and Cloud Computing With Optimization Algorithms and CNN

Field and Background of the Invention

The propagation of cloud computing with the IoT has led to noteworthy advancements in networking and data processing in numerous diverse industries. The expo development of IoT devices and the cumulative volume of sensitive data conveyed through these unified networks have created serious apprehensions concerning and privacy. Cloud computing, optimization approaches, and CNN are the occasional ways in which researchers have been investigating how to strengthen IoT secu Cloud computing's scalability, affordability, and centralized control of security services are just a few benefits of incorporating it into IoT security systems. IoT device require a solid infrastructure for continuous surveillance, analysis, and responses to security threats, and cloud platforms enable just that. However, issues with res allocation, work scheduling, energy optimization, and security parameter optimization must be resolved to ensure the efficacy of cloud-based security systems.

The effectiveness and effectiveness of cloud-based IoT safety mechanisms are greatly aided by optimization algorithms. Cloud resources can be used more effectiv the help of these algorithms, which optimize allocation, load distribution, and energy consumption. Optimization algorithms help improve the system's security by proactively distributing resources in response to changes in the security needs of IoT devices. Threat levels, computational overhead, and response time are only a f aspects that can be considered when optimizing security parameters to strike a balance between security and system efficiency. Using CNN is also a major step tow improving IoT system security. In order to recognize and analyze security-related visual data acquired by IoT devices, a family of deep learning algorithms known as perfect. The security of IoT networks and linked devices is improved by CNN-based systems for intrusion detection because of their ability to detect anomalies, iden

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