Secure Medical Transcription using Blockchain (SMTBC)

Project report submitted in partial fulfillment
for the requirement of the Degree of

MASTER OF SCIENCE IN SOFTWARE SYSTEMS

Gowtham Prasad S

17MSS018

SRI KRISHNA
INSTITUTIONS
COIMBATORE

Under the Guidance of

Dr. J. Lekha M.Sc., M.Phil., Ph.D.

Associate Professor

Department of Computer Science

Sri Krishna Arts and Science College

Coimbatore 641 008

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Sri Krishna Arts and Science College

Affiliated To Bharathiar University

Kuniamuthur, Coimbatore -641008

DECLARATION

I hereby declare that the Project report entitled ***"Secure Medical Transcription using Blockchain (SMTBC)"*** submitted in partial fulfilment of the requirements for the award of degree of Master of Science in Software Systems is an original work and it has not previously formed the basis for the award of any Degree, Diploma, Associateship, Fellowship or similar titles to any other university or body during the period of my study.

Place: Coimbatore

Date:

Signature of the Candidate

Sri Krishna Arts and Science College

Affiliated To Bharathiar University

Kuniamuthur, Coimbatore -641008

CERTIFICATE

This is to certify that the project report entitled ***"Secure Medical Transcription using Blockchain (SMTBC)"*** submitted in partial fulfillment of requirements for the degree of Master of Science in Software Systems is a record of bonafide work carried out by **Gowtham Prasad S, 17MSS018** and that no part of this has been submitted for the award of any other degree or diploma and the work has not been published in popular journal or magazine.

GUIDE ***HOD*** ***DEAN$_{i/c}$***

This Project Report is submitted for the Viva Voce examination conducted on _____ at Sri Krishna Arts and Science College.

Internal Examiner ***External Examiner***

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GOWTHAM PRASAD S
17MSS018

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ABSTRACT

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. Blockchains are distributed digital ledgers of cryptographically signed transactions that are grouped into blocks. Blockchain are used to create secure transaction. Medical transcription (MT) is the manual processing of voice reports dictated by physicians and other healthcare professionals into text format. Often it is done by a third-party organization. Whenever medical data leaves the hospital, the medical data is at risk of confidentiality breach.

Blockchain can be used to securely store the medical records over the distributed network. These medical records will not be accessed by anyone but only by who have been granted access. The medical record can be accessed using a unique credential ID.

Web application is developed using HTML, CSS. Medical Transcription process is automated using Python and Google Speech-Recognition API and deployed using Flask. Then Blockchain securely stores the medical record, which is built using Python.