1070 Unit B, West Taylor St, Chicago https://github.com/shauniop	**S H A U N S E B I K O L L A N N U R**	(312) 774-6896 shaunkollannur@gmail.com

EDUCATION

Chicago, IL	**University of Illinois, Chicago**	**Aug 2021 – May 2023**

- M.S. in Computer Science
- Graduate Coursework: Artificial Intelligence; Neural Networks; Principles of Concurrent Programming

Mumbai, India	**University of Mumbai, Mumbai**	**2014 – 2018**

- Bachelor of Engineering in Computer Engineering, May 2018
- Undergraduate Coursework: Human Machine Interaction; Machine Learning; Soft Computing

EMPLOYMENT

Systems Engineer IoT	**Site IQ LLC, Chicago**	**Aug 2022 – Dec 2022**

- Developed drivers for peripheral devices connected to the central IoT Hub
- Implemented scheduling for processes during the IoT start up
- Used NodeJS and NestJS to build efficient and scalable server and microservices architecture.
- Extracted 2-wire and ZModem protocol information from the device connected to the IoT Hub in order to update the current status and diagnosis information on the main server.

Software Engineer [*Machine Learning Research*]	**InformDS Technologies Pvt Ltd**	**June 2018 – July 2021**

- Designed a handwriting recognition model using Convolutional Recurrent Neural Network.
- Designed and developed a model using Python, to transform data points into DNA pattern strings for clustering similar handwriting models.
- Modified a multi-algorithm system for identifying objects in template using handwriting recognition and object detection to improve efficiency. Implemented an approximation algorithm to reduce the dimensionality of the handwritten data.
- Implemented an appropriate segmentation and noise removal technique to improve efficiency of system.
- Set up and used Apache Spark on Azure for Clinical Data Analytics.
- Created Literature Surveys for Medical Dashboard to find the strengths and weaknesses in competitor products And also analyzed the requirements of hospitals and doctors.

Special Project :
Developed a system for seamless digital healthcare experience for health facilities, patients and healthcare workers using National Digital Health Mission (NDHM) framework based on FHIR. (Govt. Of India collaborative)

TECHNICAL EXPERIENCE

Projects

- **Safety, Security and Rescue Robot (Python + Embedded C)**
  Implemented algorithms for 3D plotting of the room/area received by ultrasonic sensor.
  Used traceback in order to return back to the original position.
  Coded motor movements for grabbing survivors.
- **Smart children safety system in school bus transport using RFID and Android (NodeJS + Java + MondoDB)**
  Smart children safety system in school bus transport using RFID and Android. An app for Parents to track children in case of emergencies.
  The Demo uses a school bus RFID system but works well in a public network architecture of IOT devices. Project implemented for *Mumbai University Grant* under Professor Supriya S. Kamoji.
- **Programming Language Design (Scala)**
  Implemented my own programming language which has working Classes, Scopes, Object, Exceptions, Functions, Interfaces and Function Optimizations using Scala.

LANGUAGES AND TECHNOLOGIES

- Python; Java; C++; SQL; Embedded C; NodeJS; HTML; Scala
- Firebase; Azure; AWS; Apache Spark; Robotics; Agile Software Development; MondoDB