



# Hashara Kumarasinghe

COMPUTER SCIENCE AND ENGINEERING UNDERGRADUATE

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🌐 <https://hashara.github.io/>

🐙 <https://github.com/Hashara>

A Computer Science and Engineering undergraduate from the University of Moratuwa who has worked on web and mobile applications, and machine learning projects. Have done the internship at CodeGen International(Pvt) Ltd and is seeking a challenging position to fully employ experience and skills in Machine Learning, Computer Vision, and web and mobile development while contributing to the company's success.

## SKILLS SUMMARY

- TECHNICAL FIELDS**  
Machine Learning  
Computer Vision  
Web Development  
Mobile Development  
Distributed System  
Object-Oriented Programming
- PROGRAMMING LANGUAGES**  
Java | Python | JavaScript | PHP
- WEB DEVELOPMENT**  
NodeJs | Spring Boot | ReactJs |  
Angular | WordPress | Oracle APEX |  
PHP | JavaScript | Bootsrtap | HTML
- DATABASE**  
MySQL | PostgreSQL | Firebase
- MOBILE DEVELOPMENT**  
Flutter
- CLOUD**  
Google Cloud Platform | Microsoft Azure

## EDUCATIONAL HISTORY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,  
UNIVERSITY OF MORATUWA (AUG 2017 - PRESENT )  
Current GPA: 3.58

SPARK X PROFESSIONAL DEVELOPMENT PROGRAM  
SPARK ACADEMY, SRI LANKA (MAR 2021 – SEP 2021)

## ACHIEVEMENTS

- BEST TEAM PROCESS**  
Code with WIE: hackathon organized by IEEE WIE Sri Lanka Section.
- WINNERS**  
Hackdown2020: coding competition organized by the IEEE WIE Student Affinity Branch of University of Moratuwa.
- IEEEXTREME**  
24 hours programming competition organized by IEEE.
  - GLOBAL: 274 IEEEExtreme 14.0
  - GLOBAL: 464 IEEEExtreme 13.0
  - GLOBAL : 495 IEEEExtreme 12.0
- MORAXTEREME**  
12 hours programming competition organized by the University of Moratuwa.
  - RANK: 14 MoraXtreme 5.0
  - RANK: 14 MoraXtreme 4.0
  - RANK: 63 MoraXtreme 3.0

## WORK EXPERIENCE

CODEGEN INTERNATIONAL (PVT) LTD (OCTOBER 2020 - MARCH 2021) SOFTWARE ENGINEERING INTERN

### DATABASE DATA SECURITY PROJECT

- Implemented LDAP authentication for an in-house built database security project that detects sensitive data using Spring Security features.
- Quickly learnt the existing code and extended the system capabilities both at Angular frontend and REST-API based backend levels.
- Implemented features to support multiple databases; MYSQL, Oracle.

### ORACLE APEX BI DASHBOARD PROJECT

- Learnt on the job and successfully set up the Oracle Database, Oracle APEX environments and implemented an interactive BI dashboard for booking-related data analysis.

### NLP RELATED PROJECT

- Annotated texts and updated gazetteer files and trained the NLP engine which was built for company usage to identify amenities from the texts.

## PROJECTS

### MULTI-MODEL RADIOGRAPHY ANALYSIS FRAMEWORK FOR PNEUMONIA AND COVID-19 (ONGOING)

Python | Tensorflow | Machine Learning | Computer Vision | Convolutional Neural Network

[View more details](#)

- Research and development project to develop a chest radiography analysis framework to diagnose Pneumonia and Covid-19 diseases.
- **Publications** - S. Kolonne, H. Kumarasinghe, C. Fernando, D. Meedeniya, MobileNetV2 Based Chest X-Rays Classification, International Conference on Decision Aid Sciences and Application (DASA), Bahrain, 2021

### DISTRIBUTED CHAT SYSTEM (SEP 2021 - OCT 2021)

Java | Maven

[View source code](#)

- A distributed chat application where clients can connect to the servers, join or create chat rooms, and chat with other clients using a command-line interface. Delete chat room, leave the chat room, view other participants, view list of chat rooms are the additional features. This project included the implementation of the bully algorithm for leader selection and the heartbeat mechanism for failure detection.
- **My Role** - Developed client requests for deleting a chat room, chat room list, leaving and joining a chat room and a part of the bully algorithm.

### PUMP IT UP: DATA MINING THE WATER TABLE (AUG 2021 - SEP 2021)

Python | Machine Learning

[View source code](#)

- An individual project for implementing a solution for [Pump it Up: Data Mining the Water Table](#) competition in [DrivenData](#). Followed pre-processing, encoding, feature engineering, post-processing and used models like the Random Forest, Decision Tree, Gradient Boosting Classifier and XGBoost.

### NCMS - WAKANDA (JUNE 2021 - JULY 2021)

Java | Java Servlet | React | React-redux | PostgreSQL

[View backend source code](#) | [View frontend source code](#)

- A full-stack web application with functionalities like patients with COVID symptoms reserving beds from the nearest hospital, hospitals keeping patient records, and public viewing COVID-19 statics, bed statistics at multiple levels (Hospital/District/Country) or based on time. JSON Web Token(JWT) was used for authentication of the application. Gson, Jcrypt, log4j are some libraries that were used to implement the backend. Formik, React-ChartJs-2, React-Redux, Immer are some libraries that were used to implement the frontend.

### ONLINE BUS BOOKING SYSTEM (FEB 2020 - JUNE 2020)

NodeJS | Firebase

[View source code](#)

- A system for online bus booking which makes the ticketing process more convenient. The system consists of a web application and two mobile applications (Conductor App, Passenger App). The passengers can book seats, view bus schedules, view bus routes using either the web application or the passenger app while the conductors can view the booking details of their current bus using the conductor app. There is a dashboard for bus owners to view the statics. This system uses Sendgrid, Google Map, Twilio and Paypal APIs.
- **My Role** - Developed the REST API by using NodeJs with Express and designed the database (Firebase) of the system.

## EXTRA-CURRICULAR

WEBMASTER - IEEE STUDENT BRANCH UNIVERSITY OF MORATUWA 20/21

WEBMASTER - WOMEN IN ENGINEERING SYMPOSIUM 2020 AND 2021

Developed a website for [International Women in Engineering Symposium](#) using WordPress.

CREATIVE CONTENT TEAM MEMBER- IEEE SL SYW CONGRESS 2020

## REFEREES

Dr. Dulani Meedeniya  
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