



# AATHMAN THARMASANTHIRAN

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## TECHNICAL SKILLS

Java	★ ★ ★ ★ ★
Python	★ ★ ★ ★ ★
Android	★ ★ ★ ★ ★
PHP	★ ★ ★ ★ ★
C#	★ ★ ★ ★ ★
.NET	★ ★ ★ ★ ★

Machine Learning  
Deep Learning  
HTML, CSS, JavaScript  
MySQL  
Node.js  
Unity3D

## OPERATING SYSTEMS

Windows, Ubuntu

## PERSONAL STATEMENT

A highly motivated and hardworking individual, with a desire for Software Engineering, Artificial Intelligence, Mobile App Development and Web Development. Having a passion to learn and adapt to new technologies and get experience in the software industry.

## EDUCATION

Bachelor of Computer Science and Engineering (2016 - present)

University of Moratuwa (Moratuwa, Sri Lanka)

- Currently Studying at Semester 7
- CGPA : 3.81

Secondary Education (2007 - 2015)

St. John's College (Jaffna, Sri Lanka)

Advanced Level Examination

- 3A's (Combined Mathematics, Physics and Chemistry)

## EXPERIENCE

Research Intern, WSO2 Lanka PVT Ltd. (2019) [Python, Java, Bash]

Worked in Machine learning based auto-tuning of Ballerina server parameters for improved latency performance in real-time. Auto-tuning of database parameters for improved performance. Performance analysis and optimizations of Ballerina, Open Banking and APIM products using Java Mission Control and Flame graphs.

Game Developer, Dialog Axiata PLC (2018 - 2019) [C#, Unity3D]

Developed a 3D mobile game for children with Unity, in which they collect letters in a correct order to make spellings of words, with Android and iOS support.

## HONORS, AWARDS AND PARTICIPATIONS

- Winner (Group) - HackX 2018 organized by University of Kelaniya
- Winner (Group) - IEEE SS12 Pilot Competition organized by IEEE University of Moratuwa Student Branch
- Asian Finalist (Group) - IEEE SS12 organized by IEEE Education Society Madras Section
- Finalists (Group) - Yarl Geek Challenge 2018
- Participation (Group) - Brainstorm 2018 organized by IEEE EMBS Student Branch Chapter at University of Moratuwa
- Participation (Group) - Real hack 2018 organized by University of Kelaniya
- Participation (Group) - 4iR Hackathon organized by SLASSCOM

## PROJECTS

- [Human Affect and Behavior based Threat prediction](#) (ongoing) [Python, Keras, PyTorch, Deep Learning]  
**This is my Final Year Project in which, a video is taken as input and the corresponding 3 different annotations such as Emotion, Behavior and Threat levels are given for that video. This project is developed as a basis for smart surveillance applications.**
- [Predict H1N1 and Seasonal Flu Vaccines Competition](#) (2020) [Python, Machine Learning]  
**This is a group project to predict whether people received H1N1 and seasonal flu vaccines from the information they have shared.**
- [Human Gait Visualization Platform](#) (2020) [Unity3D, C#]  
**This project is done for the Center for Biomedical Innovation in order to visualize the limb movements of athletes in a 3D avatar from Shimmer sensor recordings.**
- [Dynamic Topic Modelling for social media texts](#) (2019) [Python, NLTK, Deep Learning]  
**A project to identify and visualize the topic evolution over a time window in a large text. The system will separate the large corpus into small documents, then it will identify the main topics in each document to plot a graph that shows the evolution of topics.**
- [Arthrocure](#) (2018) [Unity3D, C#]  
**An exercise game for arthritis patients using Kinect sensor. The input will be the user movement, that will be captured by the sensor and the avatar in the game will move according to the user. When the user moves his body to collect the coins in the game, he will be doing the required exercises to cure Arthritis.**
- [Accident Assistor for IEEE Hackathon](#) (2018) [Android, Node.js, Twilio API, Arduino]  
**Usually, people going for long drives, don't get help on time when they meet accidents. This prototype app will help them in such situations by automatically calling for help.**
- [Inventory Management System with barcode reader](#) (2018) [C#, .NET Framework, MS SQL Server]  
**This is a desktop application used to manage the inventory of a Divisional Secretariat office. Recording of all purchases and tracking of stocks is the main objective of this system. It can generate monthly reports for printing and documentation purposes.**
- [Contributed to Mifos Initiative Android client](#) (2019) [Java, Android]  
**I have made several bug fixes for the Open source Android Client app used by field officers in micro banking scenarios to directly interact with the Mifos platform.**

- [Contributed to Eclipse Foundation](#) (2018) [Java]  
Eclipse Advanced Scripting Environment (EASE) is one of the products by Eclipse to automate many IDE related tasks and improve the workflow of the IDE. I made a small commit for EASE, to automate Git workflow including automatic push and pull. This will help new users to understand the uses of EASE.
- [Bank Transaction and Loan Processing System](#) (2018) [PHP, MySQL, HTML, CSS]  
This project mainly focuses on database design for a bank including normalization, denormalization, access control at the database level as well as at the application level. ACID properties are also considered in the transaction part of the system.
- [University Management System](#) (2018) [PHP, MySQL, HTML, CSS, JavaScript, jQuery]  
A web solution for university management with features like course enrollment, assignment submission, etc. This project focuses on the front end, user input validation, access control at the application level, etc.

## EXTRA CURRICULAR ACTIVITIES

### [Clubs and Societies](#)

- Prefect – St. John’s College (2013/15)
- Member of Science Union – St. John’s College (2013/14)
- Member of English Union – St. John’s College (2013/14)
- Member of Tamil Literary Association - University of Moratuwa (2016 - present)

### [Games](#)

- Captain of Chess Team – St. John’s College (2013/14)
- Member of Chess Team – St. John’s College (2006/13)
- Member of Scrabble Team – St. John’s College (2013)

## REFERENCES

Dr. Uthayasanker Thayasivam  
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