Oshan Mudannayake

Researcher | Developer

ABOUT ME

A Philomath

INTERESTS

Algorithms
Machine Learning
Computer Vision

WHO AM I?

Avid reader
Gamer
Dreams about traveling
Likes food (can cook!!)
Borderline otaku

CONTACT ME

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R&D PROJECTS

- **Realtime Property Evaluation of Large Streaming Graphs**
  CS Research, Streaming Graphs, Graph Summarization, Python
  4th year research project carried on the area of massive streaming graph summarization.

- **TessTA (Ongoing)**
  React, Java, Spring Boot, Hibernate, Tesseract, AWS
  OCR Solution for Sinhala language using Tesseract OCR Engine.

- **Bra Elasticity Analyzing System**
  Java, Swing, Image Processing, OpenCV
  Implemented a way to compare the elasticity of sports bras using image processing.

- **Machine Learning over Encrypted Data**
  Machine Learning, Encryption, Tensorflow, Python, Google Cloud Platform
  I worked on adding a layer over Tensorflow to facilitate machine learning on encrypted data over a distributed network of machines.

- **Yarn Detection System**
  Image Processing, Python, OpenCV, Raspberry Pi
  Solution to detect the knots of yarn threads in glove weaving machines.

- **Glove Defect Identification System**
  Java, JavaFX, Android, FSR 400
  Identified the common defect of gloves using image processing as they are being passed through a conveyor belt.

- **Smart Glove**
  Java, JavaFX, FSR 400, Arduino
  A glove prototype that can measure the pressure distribution and the acceleration of hand in order to derive the best patterns of movements for Cricket players in relation with the hand pressure.

OTHER PROJECTS

- **Petabyte Scale Cloud Storage File Manager**
  Vue.js, ownCloud, Pug
  My Google Summer of Code 2018 project in collaboration with *CERN-HSF, ownCloud* and *AARNet*.

- **Smart Traffic Light System**
  Angular, NodeJS, Firebase, Google Cloud Platform, Raspberry Pi, Arduino, MQTT, Ionic Framework
  Traditional time interval based traffic light system was automated to remove the involvement of traffic officers.

- **Play to Learn**
  Android, Kotlin, Firebase Realtime Database
  Android game developed in the style of 'Snake and Ladders' to improve the algorithmic and programming skills of students.

EDUCATION

- 2016 - 2019 - **BSc(Hons) in Computer Science**
University of Colombo School of Computing
Current GPA : 3.609 (Rank : 6/156)

- 2001 - 2014 - **Physical Science**
Maliyadeva College

EXPERIENCE

- **Data Science Engineer**
WSO2
Colombo (Mar 2021 - Present)

- **Software Engineer**
WSO2
Colombo (Mar 2020 - Mar 2121)

- **Research Intern**
University of Colombo School of Computing
Colombo (Aug 2018 - Jan 2019)
  - Conducted a research under the area, "Machine Learning Over Encrypted Data".

- **Software Developer (Contract)**
Language Matters
Colombo (Jan 2018 - Mar 2020)
  - Working part time on developing an OCR solution for Sinhala using Tesseract OCR Engine.

- **Software Developer (Contract)**
Dreamteam IT Solutions
Kurunegala (Mar 2016 - Jan 2017)
  - Provided R&D solutions to industrial problems such as Bra Elasticity Analysing System, Yarn Detection System and Glove Defect Identification System.

- **Course Instructor**
Dreamteam IT Solutions
Kurunegala (Jan 2016 - Jun 2016)
  - Conducted sessions for introductory robotics and Java 6.

CERTIFICATIONS

- 2015 - **Oracle Certified Professional, Java SE 6 Programmer - (Score : 98/100)**
Oracle

- 2015 - **Robotics and Automation**
Dreamteam IT Solutions

- 2015 - **Professional Certified Java Developer**
Dreamteam IT Solutions

- 2013 - **Diploma in Software Engineering**
Esoft

- 2010 - **Diploma in PC Hardware and Network Administration**
Esoft

ACHIEVEMENTS

- 2019 - **HackZurich**
Got selected for the HackZurich at *Zurich, Switzerland* out of 5000+ hackers

- 2018 - **Google Summer of Code 2018**
CERN-HSF

- 2018 - **Hack The North**
Participation at *Waterloo, Canada*

- 2018 - **CodeZilla**
Winner

- 2018 - **LetMeHack**
Winners

- 2017 - **HACKiNTRA**
1st Runners Up

- 2017 - **CodeFest Designathon**
Finalists

- 2017 - **SS12 Asia**
Semi Finalists

- 2017 - **Dialog Gaming Hackathon**
2nd Runners Up

- 2017 - **Presistant Hackathon**
1st Runners Up

- 2016 - **Mozilla Web Maker Party**
Winners

- 2016 - **CodeFest Tertiary Hackathon**
1st Runners Up

- 2016 - **IEEE preXtreme 1.0**
Winners

- 2016 - **ACES Coders**
6th Place

- 2016 - **Code Experts**
5th Place

SCHOLARSHIPS & GRANTS

- 2019 - **HackZurich**
Travel grant by *Digital Festival*

- 2019 - **AI Summer School Singapore***
Scholarship

- 2018 - **ownCloud Conference 2018**
Full grant by *CERN & ownCloud*

- 2018 - **Hack the North 2018**
Travel grant

HONOURS & AWARDS

- 2017 - **Award of Appreciation**
UCSC Appreciation Awards

CONFERENCES

- 2018 - **Lightning talk on Phoenix**
  ownCloud Conference at *Nuremberg, Germany*

VOLUNTEERING

- 2019 - **Google Summer of Code 2019**
  Mentor at *Google | SCoRe Lab*
  Co-mentored 4 projects and 8 students.

- 2019 - **2nd Year Project Mentoring**
  Mentor at *IEEE Student Branch of UCSC*

- 2018 - **Google Code-In 2018**
  Mentor at *Google | SCoRe Lab*
  Interacted with the highest number of tasks (500+) of the org for the year.

- 2018 - **2nd Year Project Mentoring**
  Mentor at *IEEE Student Branch of UCSC*

- 2017 - **Google Code-In 2017**
  Mentor at *Google | SCoRe Lab*

- 2017 - **Google IO Extended**
  Volunteer at *Dialog*

- 2017 - **preXtreme 2.0**
  Question panel at *IEEE Student Branch of UCSC*

- 2017 - **International School Software Competition (ISSC)**
  Mentor | Question panel at *Computer Society of Sri Lanka (CSSL)*

- 2017 - **Help to Code**
  Mentor at *Information and Communication Technology Agency of Sri Lanka (ICTA)*

- 2016 - **Google Code-In 2016**
  Mentor at *Google | SCoRe Lab*

- 2016 - **IEEE Student/YP/WIE Congress**
  Delegate at *IEEE Sri Lanka Section*

- 2016 - **National Software Competition (NSSC)**
  Mentor | Question panel at *Computer Society of Sri Lanka (CSSL)*

COMMITTEE POSITIONS

- 2019 - **President**
  IEEE Student Branch of UCSC

- 2019 - **Core Team Member**
  Google Developer Group Sri Lanka

- 2019 - **Team Lead**
  Mozilla Activate Sri Lanka - Rust Team

- 2018 - **Web Master**
  IEEE Sri Lanka Section | Student Activities Committee (SAC)

- 2018 - **Secretary**
  IEEE Student Branch of UCSC
  Coordinated IEEE Annual Get Together, UCSC IEEE Day, IEEE Xtreme 12.0

- 2018 - **Operational Committee**
  Mozilla Activate Sri Lanka

- 2018 - **Android Developer**
  Global Geek Sustainable Learning Kingdom (GGSLK) Sri Lanka

- 2017 - **Operational Committee | Program Team**
  IEEE Student/YP/WIE Congress

- 2017 - **Operational Committee | Finance Team**
  Technological Awareness Project by IEEE Sri Lanka Section

- 2017 - **Operational Committee | Program Team | Finance Team**
  Cloudhack '17 by IEEE Student Branch of UCSC

- 2017 - **Core Team Member**
  Mozilla Club UCSC

- 2017 - **Coordinator**
  IEEE Student Branch of UCSC

- 2016 - **Operational Committee | Finance Team**
  Innover - IEEE IAS IOT Workshop

- 2016 - **Operational Committee | Program Team**
  IEEE Day UCSC

- 2016 - **Instructor**
  Exploration Club | UCSC

- 2014 - **President**
  Robotics Club

- 2013 - **Team Lead**
  Hardware and Networking Team

REFEREES

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