# Damsy De Silva

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## EDUCATION

**BSc Engineering (Hons) | Faculty of Engineering | University of Peradeniya, Sri Lanka**

2017 Nov – Present

| | |
|---|---|
| Current GPA | : 3.67 / 4.00 |
| Specialization | : Computer Engineering |
| Relevant Coursework | : Computer Architecture, Embedded Systems, Software Construction, Computer Networking, Computer and Network Security, Database Management, Data Structures & Algorithms, Discrete Mathematics, Numerical Mathematics, Electronics |

**Prajapathi Gothami Girls' College | Ambalangoda**

2003 – 2016

GCE A/L (2016)   :   A – Combined Mathematics        A – Chemistry        B – Physics

District Rank : 94      National Rank : 1122        Z-Score : 1.8444

GCE O/L (2013)   :   8 A passes & B pass

## SKILL HIGHLIGHTS

| | |
|---|---|
| Programming Languages | Java, C, C++, Python |
| Procedural Programming | ARM Assembly |
| Hardware Programming | Arduino C, Verilog HDL |
| Mobile Programming | Flutter, Dart |
| Web Developing | HTML, CSS, JavaScript |
| Database Systems | MySQL |
| Version Control | Git |
| Languages | English, Sinhalese |

## PROJECTS

**Project chessMATE | Smart Chess Platform**

Developing an electronically powered chessboard and mobile app so that worldwide chess players can connect and play on the actual chessboard.

Technologies   :   ESP32 development board, Hall-effect Sensors, C++, Flutter-Dart, MySQL, nodejs, AWS

Techniques   :   Multiplexing Algorithms, Bluetooth-Serial Communication, Web-Socket Programming, Sensor Calibration

**Processor Implementation**

Implemented a processor which includes ALU, a Register File, Control Logic, Data Memory, Data Cache, Instruction Memory & Instruction Cache.

Technologies   :   Verilog HDL

Techniques   :   Computer Architecture, Harvard Architecture Implementation

### Library Management System | Group Project

Web application with Database for Library Management System for an educational institute in order to make library management more efficient and easy to handle.

Technologies : MySQL, HTML, CSS, PHP
Contribution : Database Modelling, Front-End Developing

### Auction Server

A Server which can be used by clients to bid for items in a sample stock exchange.

Technologies : JAVA
Techniques : Multi-threading, Synchronization primitives, Socket Programming, OOP

### Fractal Visualization

Software that Visualize the Mandelbrot and Julia Fractal sets according to the user inputs.

Technologies : JAVA
Techniques : Multi-threading

### Project You See World | Smart Guidance System for Blind | Group Project

Developed an electronically powered blind stick that detects near obstacles and vibration belt to notify the blind person. And a mobile app for assistance with voice controlling.

Technologies : Arduino Microcontroller, Ultrasonic Sensors, Raspberry Pi
Techniques : Sensor Calibration, Bluetooth Communication

### Other Hobby/Course Projects

- Analog Line Follower Robot (Technologies:  OP-AMPs)
- Obstacle Avoidance Robot (Technologies: Arduino Microcontroller, Ultrasonic Sensors)
- Mini Radar Project (Technologies: Arduino Microcontroller, Ultrasonic Sensors, Servo Motors)

## CERTIFICATIONS

### Cisco Certified Network Associate (CCNA) | Currently Following

### Google IT Automation with Python Professional Certificate | COURSERA

- Course 1 : Crash Course on Python
- Course 2 : Using Python to Interact with the Operating System
- Course 3 : Introduction to Git and GitHub

### AWS Fundamentals: Going Cloud-Native | Amazon Web Services | COURSERA

### Cryptography and Information Theory | University of Colorado | COURSERA

### Deep Learning Specialization | deeplearning.ai | COURSERA

- Course 1 : Neural Networks and Deep Learning
- Course 2 : Improving Deep Neural Networks

### Diploma in Information Technology | ESOFT METRO CAMPUS

### Certificate in Java Programming with Software Application Development | ESOFT METRO CAMPUS

## COMPETITIONS

**Arimac Future Cast Ideathon 2021 | IoT Category | Finalist**
  Project: Project chessMATE (Smart Chess Platform)

**HackStat 2.0 2019 | Organized by Stat Circle, University of Colombo | 2$^{nd}$ Runners-up**
   Task:  Give a prediction model on Insurance based dataset

**DATATHON | SLIIT CODEFEST 2019 | Merit Award**
   Task:  Give a prediction model on dataset which based on Online Shoppers Purchasing

**IEEE SS12 ASIA 2018 | Innovative Pilot Competition, University of Peradeniya | Runners-up**
   Project: Project You See world (Smart Guidance System for Blind)

**IEEE Region 10 Humanitarian Technology Conference 2018 Community Outreach Project | Humanitarian Technology Product Competition | Runners-up**
   Project: Project You See world (Smart Guidance System for Blind)

## LEADERSHIP AND AWARDS

**Most Outstanding Student Award | Post A/L School Prize Giving | 2017**

**Deputy Head Prefect | Prajapathi Gothami Girls' College, Ambalangoda | 2016**

## EXTRACURRICULAR ACTIVITIES

**School Math Quiz Team | Team Member | 2008 - 2015**
Have participated & won multiple Inter-School Quiz Competitions since 2008

**School Chess Team | Captain: U-16, U-14 | Team Member | 2005 – 2015**
Have participated & won multiple All-Island Chess Championships since 2006

**School Badminton Team | Team Member | 2004 - 2014**

**Music Society | University of Peradeniya | Member | 2018 – Present**

## REFERENCES

Prof. Roshan Ragel
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