

VIDURANGI KALPANA

Department of Computer Engineering, University of Peradeniya, Sri Lanka
+94 70 327 2396 | mwvidurangikalpana@gmail.com
[GitHub](#) | [LinkedIn](#)

A 3rd year student majoring in computer engineering with over three years of development experience in java and a great interest in software engineering. A passionate learner with interests in programming, artificial intelligence, machine learning and web development. Currently looking for internship opportunities to gain work experience in industry.

EDUCATION

BSc Engineering (Hons) | Faculty of Engineering | University of Peradeniya, Sri Lanka **Nov 2018 - Present**
Specialization : Computer Engineering Current GPA : 3.56 / 4.00

Institute of Java and Software Engineering (IJSE) | Galle, Sri Lanka **Sept 2017 – Oct 2018**

Completed the Pre- Academic Programme of Graduate Diploma in Software Engineering
Qualified as a Comprehensive Master Java Developer fulfilling the requirements of

- Oracle Certified Associate Java SE Examination (OCAJP)
- Oracle Certified Professional Java SE Examination (OCPJP)
- Oracle Certified Master Java SE Examination (OCMJDP)
- Comprehensive Analysing, designing, and implementing Java SE software solution in covering major aspects of software developing standards

G/ Dharmasoka College | Ambalangoda, Sri Lanka **2003 – 2017**

GCE Advanced Level Examination (2017) : Combined Mathematics: (A), Chemistry: (A), Physics: (B) Z-Score : 1.7653

PROJECTS

Greenhouse Monitoring System based on Image Spectral Data | Group Project **2022 - Present**

[[Project Page](#)] | [[GitHub Repo](#)] | [[Azure DevOps Project](#)]

- A full-stack web application to efficiently manage the greenhouse by tracking the phases of plant harvest, identifying any plant disorder, and tracking the plant growth by using the image spectral data taken from a computer vision system.

Technologies : React, NodeJS, Express, MongoDB, AWS, Azure DevOps, Python, OpenCV

Contribution : Web App Frontend Development, Web App Backend Development, Web Page Development, Azure DevOps Documentation, API Testing

Smart Garbage Collector | Group Project **2021 – Present**

[[Project Page](#)] | [[GitHub Repo](#)]

- A IoT Platform that facilitates the garbage disposal in a large area with proper coordination between the responsible authorities and the workers assigned to collect garbage while utilizing the available resources effectively.
- Created a Web Application for the Authorities and a Mobile Application for Garbage Collectors.
- Designed a Garbage Bin that has a fill level detection unit, user alerting unit and a compaction unit.

Technologies : React, NodeJS, Express, Flutter-Dart, MySQL, AWS

Contribution : AWS Cloud deployment, 3D Model Design, Web Page Development, Mobile App UI Design

Online Classroom | Group Project **2020**

- Web Application for Student Management for Schools to manage students who have finished O/L's and ready start A/L's.

Technologies : MySQL, HTML, CSS, PHP

Contribution : Database Modelling, Interface Designing

8-bit Single Cycle Processor | Group Project **2020**

- Designed a 8-bit single Cycle processor with a MIPS Style instruction set including an ALU, a register file and control logic.
- Designed a memory architecture for the CPU with separate data and instruction memory with their caches.

Technologies : Verilog HDL

SipSewana Student Management System | Individual Project **2018**

- Web Application with database for student management for an educational institute make student management more efficient and easier to manage.

Technologies : MySQL, Java, JavaFX

TECHNICAL SKILLS

Programming Languages	Java, C, Python	Database Systems	MySQL, MongoDB
Web Developing	HTML, CSS, JavaScript, ReactJS	Hardware Programming	Arduino C, Verilog HDL
Machine Learning	Scikit-learn, Numpy, Pandas	Procedural Programming	ARM Assembly

ACHIEVEMENTS & CERTIFICATIONS

ACES AI HACKFEST 2022 Organised by ACES, University of Peradeniya	2022
Won the first Place in Agriculture Category by leading the Team for the Project Greenhouse Monitoring & Control System Based on Image Spectral Data and IoT Sensor Data	
Programming Foundations with JavaScript, HTML and CSS Duke University COURSERA	2020
Python Data Structures University of Michigan COURSERA	2020
Complete Python Programming for Beginners UDEMY	2021
Neural Networks and Deep Learning DeepLearning.AI COURSERA	2022
The Complete 2022 Web Development Bootcamp UDEMY	2022
Complete Machine Learning & Data Science Bootcamp 2022 UDEMY	2022

TEACHING EXPERIENCE

Teaching Assistant Department of Computer Engineering University of Peradeniya	2022 – Present
CO324: Network and Web Application Design Conducting weekly 2-hour lab sessions with lab task evaluations	
Volunteer Teacher Arunella & Nenathambara Social Service Projects University of Peradeniya	2019, 2022

EXTRACURRICULAR ACTIVITIES

Sports | Badminton

University Colours Awards Ceremony University of Peradeniya Representative Colours	2022
University Badminton Girls Team University of Peradeniya Lead Team Player	2020 – Present
<ul style="list-style-type: none">UMISF 2020 Organised by University of Moratuwa Runners UpBATTLEFIELD 2020 Badminton Championship Organised by University of Peradeniya Second Runners Up	
National Sports Festival Organised by Ministry of Sports, Sri Lanka	2012- 2016
<ul style="list-style-type: none">XLII, XXXVIII National Sports Festival 2016, 2012 Southern Province Team Runners UpXLI, XL National Sports Festival 2015, 2014 Southern Province Team ChampionsExcellent Performance in Badminton Southern Province Colours 2012, 2014, 2015, 2016Inter District Sports Competition Galle District Team 2012, 2014, 2015, 2016 Champions	
From 2004 – 2016 National School Badminton Player and Girls Team Captain who won Championships, Runners Ups and Second Runners Ups in School, Zonal, Southern Provincial and All Island Tournaments.	
From 2007 – 2016 National School Colours Holder in School, Southern Provincial, and All Island Colours Awards Ceremonies for the Excellent Performance.	
Cheers Youth International Badminton Championship 2007 Organised by Singapore Badminton Association, Singapore Participation	

Sports | Other

Inter Faculty Tennis Championship University of Peradeniya Champions	2019
School Swimming & Athletic Team member G/ Dharmasoka College, Ambalangoda	2011 – 2015

Leadership | Sports and Other

University Badminton Girls Team University of Peradeniya Vice Captain	2021 – Present
Girls Badminton Team Captain & Vice Captain G/ Dharmasoka College, Ambalangoda	2007 – 2016
Assistant Prefect & Senior Prefect Prefect Board G/ Dharmasoka College, Ambalangoda	2014 – 2016

Leadership | AIESEC in Kandy

Organizing committee Vice President in Finance at UNLOCKED 2.0	May 2021 – Aug 2021
Best Financier Nominator for the term 20/ 21 for UNLOCKED 2.0	2021
Guest Presenter in Bridge to Overseas Event	2021
IGT Matching & IR Team Member	Feb 2021 – Aug 2021
IGTe / IGta Sales Team Member	Aug 2020 – Feb 2021
IGV BSL July Value Delivery Team Member	Feb 2020 – Aug 2020

REFERENCES

Prof. Roshan Ragel roshanr@eng.pdn.ac.lk
Professor, Department of Computer Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka
Dr. Isuru Nawinne isurunawinne@eng.pdn.ac.lk
Senior Lecturer, Department of Computer Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka