

# VILAKSHAN VINASIRAJAN

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## Education

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### University of Peradeniya

Dec 2019 - Current

#### BSc Computer Engineering (3.8/4.0)

- **Courses:** OOP, Data Structure & Algorithm, Machine Learning, Software Engineering, Database Systems, Operating System, Networking, Embedded System

### Diploma in Management Accounting - CIMA

2019

## Skills

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**Languages:** Python, Java, C, Dart

**Back End Development:** Node.js, Firebase

**Mobile App Development:** Flutter

**Databases & Cloud Services:** Cloud Firestore, MySQL, AWS (Beginner Level), Firebase Functions

**Other:** Linux, ARM, MQTT, Docker

**Soft Skill:** Problem-solving, Leadership, Teamwork, Effective Communication

## Collaborative Projects

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### Pegas: Smart Gas Monitoring System

2023

- Monitors gas levels and detects gas leaks using sensors
  - App allows users to monitor gas levels and receive alerts for gas leaks
- [Flutter, Firebase, Embedded System, C]*

### EagleEye: Unleashing Real-Time Remote Monitoring

2022

- Captures real-time video from an onion storage and seamlessly displays it to the user through a dashboard app.
- [Arduino, Flutter web, MQTT, C]*

### Digital Twin for Smart Agriculture

(current)

- Maintains a temperature and Humidity within the level
  - Won ACES Hackathon 2023
- Supervised Machine Learning: *[Linear Regression, Decision Tree, Forest, XGBoost]*

## Individual Projects

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### WSAP - Tool Kit for WhatsApp

2021

- Enables users to create and share polls, save WhatsApp statuses, and split videos for direct status sharing.
  - Have 500+ downloads on [Google Play](#).
- [Flutter, Firebase]*

### Sri Lankan Shipping Rate

2023

- Assist direct shipping businesses in calculating shipping rates.
  - Have 1000+ impressions
- [Flutter Web, Firebase, Google Search Console]*

## GOOGLE SCHOLAR WEB SCRAPE BOT

2023

- Obtain the usernames, citation counts, and links to the Google Scholar profiles of university staff members.  
*[Python, Selenium]*

## Lankan Assist : An app for All Srilankan

2021

- Offers a diverse range of functionalities including real-time Sri Lankan news sourced from Twitter, railway schedule information, and various other features.
- Have 1000+ downloads on [Google Play](#).  
*[Flutter, Firebase]*

## STUDENT RESULTS MANAGEMENT SYSTEM

2021

- An app for undergrads to analyze their results without the involvement of supervisors or lecturers.  
*[JAVA, Android Studio, Firebase]*

## DIGITAL CLOCK

2021

- displays the current time and date on a Linux terminal, mimicking the appearance of a digital clock with the appropriate format and font.  
*[C]*

## BUILDING AN 8-BIT SINGLE CYCLE COMPUTER PROCESSOR- RISC V

2021

- An 8- bit single cycle processor with an ALU, register file, control logic, data memory, data cache, instruction memory and instruction cache. A memory hierarchy was built too.  
*[ARM]*

## Contributions to Open Projects within University Teams

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### Improving Deep Learning Workflow

- Configure Singularity on a Linux server and execute PyTorch containers from Docker Hub using Singularity images..  
*[Linux]*

### University Web Development Team

- Research on Impact Ranking

## Achievement

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### ACES HACKATHON (2023)

- Title winners under Sustainable category
- Demonstrated Smart Green House Project

### ACES CODERS V 9.0

- National-wide problem-solving hackathon
- 26th place out of 100 Teams

## References

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