Vithurshini Subramanieam

Final Year Computer Engineering Undergraduate

📞 +94 762472486 ✉ vithurshinisubramanieam@gmail.com Github LinkedIn ResearchGate

🏠 194, Pickerings Road, Kotahena, Colombo-13, Sri Lanka

Summary

Motivated Computer Engineering undergraduate seeking a software engineering position. Possesses strong problem-solving skills and a steadfast commitment to continuous learning. Thrives in collaborative team settings, leveraging diverse insights for innovation.

Technical Skills

Programming Languages: Java, Python, C
Web Development: HTML, CSS, PHP, TypeScript
Frameworks : React.js, Next.js, Node.js
Database: MySQL, Firebase
Mobile App Development: Flutter
Other: Natural Language Processing

Work Experience

Intern Software Engineer   **Jul 2023 - Dec 2023**
CLOUDA.LK (PVT) LTD   *Remote*

- Conducted the research on transformer models and their applications.
- Developed a user order-based recommendation model.
- Researched on Large Language Models (LLM).
- Integrated AI Search component into their existing SmartDB application.
- **Technologies** : React.js, Next.js, TypeScript, ML

Education

University of Peradeniya   **Nov 2019 - Present**
BSc Engineering Honours in Computer Engineering   *Current GPA : 3.75/4.00*

Colombo Hindu Ladies College   **May 2016 - Aug 2018**
G.C.E Advanced Level - Physical Science Stream   *2As 1B (Physics)*

Projects

Automated Medical Image Annotation for Dataset Building (FYP, Group) — Github   **Jan 2024 - Ongoing**

- **Technologies** : Python, ML
- This is a model capable of predicting and segmenting images based on user-provided annotated images.
- Additionally, textual prompting can also be integrated.
- Initially, researched existing state-of-the-art models and established a pipeline for image segmentation tasks.
- Currently I am focusing on training an exiting self-supervised few-shot semantic segmentation model with custom dental image dataset.

OCR and Translation from Sinhala to Tamil for Printed Documents (6SP, Group) — Github **Apr 2023 - Jun 2023**

- **Technologies** : NLP, ReactJS, NodeJS, OCR
- This is a software to recognize printed Sinhala text, convert it to editable text using OCR, and translate it to Tamil.
- The user can upload and download the document through the software.

Secured Vision Camera Surveillance System with Automated Lighting (Group) — Github **Apr 2023 - Jun 2023**

- **Technologies** : Arduino, IOT
- This system recognizes any unauthorized access and takes the appropriate steps to both turn on the light and take pictures of the intruder.
- Additionally, the system offers a dashboard with access to the security system database and real-time monitoring.

Simple photo story webpage for an event (Individual) — Github, Hosted webpage   **Mar 2023**
- **Technologies** : React.js
- A react web page to visualize the highlights of the Calistus Trophy 2022.

Digital Gas Monitoring System (PEGAS) (3YP, Group) — Github   **Oct 2022 - Jan 2023**
- **Technologies** : Flutter, IoT, Firebase
- Implemented various IoT sensors and devices to monitor gas levels and detect potential gas leaks, ensuring user safety and convenience.
- Integrated Firebase database and cloud messaging services to store and retrieve gas usage data, provide real-time notifications, and enable user-friendly analytics.
- I contributed by working on load cell-based gas level monitoring.

Development of an Image Capturing Unit for Remote Monitoring (Group) — Github   **May 2022 - Jul 2022**
- **Technologies** : Arduino, IoT, MQTT, Flutter
- Using this monitoring web application system the users will be able to visualize the objects under investigation.
- They can also use the captured images to undergo further analysis and make decisions on them, use the captured images to build data models for remote controlling and manage applications.
- I captured images and tested using ESP32Cam and Node-RED.

Student Results Management System (Group) — Github   **Feb 2022 - May 2022**
- **Technologies** : Java Native, Firebase
- This is a mobile application that allows students to add the relevant courses they are enrolled in and their respective results, making it easier to keep track of their academic progress.
- The feature that allows students to view the results they need to attain to achieve their desired GPA is also developed.
- I have worked on the GPA calculating system.

Twitter Sentiment Analysis (Individual) — Github   **Jul 2021**
- **Technologies** : Python, Natural Language Processing
- This streams specific tweets from twitter using twitter API.
- Performs sentiment analysis on tweets in both Tamil and English languages separately.

Languages

Tamil	Native proficiency
English	Professional proficiency
Sinhala	Limited working proficiency

Activities

Casual Instructor at University of Peradeniya — Software Construction (Java), Introduction to Programming (C)	**2023**
Committee Member of Association of Computer Engineering Students (ACES)	**2023/2024**
Writer of Engineering Students' Publication Society - GAUGE and ACES	**2023/2024**
Member of Web Consultation Team, University of Peradeniya	**2022/2023**
Member of ACES Design Team	**2022/2023**
Secretary of Mathematics Union, Colombo Hindu Ladies College	**2017/2018**

Achievements

Participated in ICIIT Research Paper Publication	**2022**
Winners of ACES Hackfest	**2022**
Top 25 in ACES Pre-Coders (6 hours coding competition)	**2022**

References

Prof. Roshan G. Ragel

Head of the Department

Department of Computer Engineering,

Faculty of Engineering,

University of Peradeniya, Sri Lanka.

Phone: +94 81 239 3913

Email: roshanr@eng.pdn.ac.lk

Sahan Jayawardana

Head of Engineering

CLOUDA.LK (PVT) LTD,

106/1, Udammita,

Veyangoda, Sri Lanka

Phone: +94 77 684 9601

Email: sahan@clouda.io