Vithurshini Subramanieam

Software Engineer

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Summary

Software Engineer with a Computer Engineering background, specializing in backend development across multiple domains. Strong problem-solving skills with hands-on experience in designing and building scalable server-side systems. Highly motivated, collaborative, and committed to continuous learning and delivering high-quality solutions.

Technical Skills

Programming & Backend: Java, Python, C, Node.js, Spring Boot, GraphQL, REST, Swagger, Kafka, Threads, Scheduler
Web & Frameworks: HTML, CSS, TypeScript, React.js, Next.js, Single-SPA
Databases: MySQL, PostgreSQL, MongoDB, Firebase
Cloud & DevOps: AWS, Jenkins, SonarQube, Podman, Cognito, Datadog
Mobile & Other: Flutter, Linux, NLP

Work Experience

Software Engineer   Oct 2024 - Present
Sysco LABS Sri Lanka   *Hybrid*

- Developed an end-to-end e-commerce application for food service, replicating Sysco's platform on a smaller scale with real purchase and delivery functionality, implementing multi-role features for Admin, User, and Vendor.
- Worked on key domains including Personalization (banners, promo codes), Ordering (secure order placement), and User management (authentication, access control, secrets), contributing to domain related initiatives.
- **Technologies** : Java, GraphQL, Javascript, Springboot, AWS, SingleSPA, Kafka

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

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

Education

University of Peradeniya   Nov 2019 - Sep 2024
BSc Engineering Honours in Computer Engineering   *Current GPA : 3.75/4.00*

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

Projects

Comparative Analysis on Automated Medical Image Annotation (FYP, Group) — Github   Jan 2024 - Sep 2024

- **Technologies** : Python, ML
- This is an analysis between different models capable of predicting and segmenting images based on user-provided annotated images.
- Initially, researched existing state-of-the-art models and established a pipeline for image segmentation tasks.
- **Contributions** : trained an existing self-supervised few-shot semantic segmentation model with 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.
- **Contributions** : Developed frontend interface and conducted testing of various OCR engines, selecting the best-performing option for optimal accuracy and efficiency.

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.
- **Contributions** : Worked 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.
- **Contributions** : 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.
- **Contributions** : Worked on the GPA calculating system.

Twitter Sentiment Analysis (Individual) — Github — **Jul 2021**
- **Technologies** : Python, Natural Language Processing
- This streams specific movie reviews from Twitter using the Twitter API, translates them to English, and classifies the emotions as positive, negative, or neutral.

Languages

Tamil	Native proficiency
English	Professional proficiency
Sinhala	Limited working proficiency

Activities

Member of Badminton Team at Sysco LABS Srilanka	**2025**
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

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