# Dharane Segar

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# **Summary**

Motivated final-year Software Engineering undergraduate at SLIIT, passionate about using technology to solve real-world problems. Skilled in programming, development methodologies, and multitasking. Currently completing my degree and actively seeking Software Engineer roles in a progressive organization where I can contribute meaningfully while continuing to enhance my skills and expertise.

# **Experience**

#### Software Engineer Intern, WSO2 – SriLanka

Aug 2023 - Jan 2024

- Reusable demos were built for the banking and airline industries, including credit card systems and loyalty programs.
- Created back-end services with WSO2 tools, exposed them as Managed APIs.
- Dockerized demos, managed source code on GitHub, and documented usage and customization.

#### Education

**Sri Lanka Institute of Information Technology (SLIIT)**, BSc (Hons) in Information Technology Specializing in Software Engineering

June 2021 – Present

• CGPA: 3.82/4.0 (as of the end of third year)

# Hindu Ladies' College, Colombo - 06,

Jan 2007 - Oct 2020

- GCE Advanced Level (2020) Combined Mathematics A, ICT B, Physics C, General English A
- GCE Ordinary Level (2017) 9 As

## **Projects**

#### BioMentor - Intelligent Summarization Tool for A/L Biology - Research Project

Link

- Developed the summarization component of BioMentor using a fine-tuned Flan-T5 model with voice output, multilingual note generation, and keyword extraction with definitions. Added YouTube video suggestions and used RAG for improved content relevance. Chose a monolithic architecture after comparing with microservices for better performance and simplicity.
- Tools used: Python, FastAPI, Hugging Face, FAISS, gTTS, MongoDB, React.js, Azure, Docker, Google Colab.

#### iCorner - e-Commerce Web and Mobile application

Link

- It includes a Web application for managing users, products, orders, and inventory, along with a mobile application for customers to browse products, place orders, and track their status. Supports features like role-based access, real-time notifications, and multivendor order management.
- Tools used: C#, ASP.NET, React.js, Bootstrap, MongoDB, Java, Android Studio, IIS.

#### LearnHub - e-Learning Platform

Link

- An online educational platform implemented in microservices architecture for course browsing, enrollment, and
  progress tracking. It includes tools for instructors to manage courses, administrators to oversee the system and
  payments, and learners to access multiple courses.
- Tools used: React.js, Node.js, MongoDB, Docker, Docker Compose, Tailwind CSS

#### Solar Flare - Web application for an optical store

Link

- A web-based platform for an optical store that allows users to virtually try on glasses using their device's camera. It enables browsing a wide range of styles, providing a personalized and interactive shopping experience.
- Tools used: React.js, Node.js, Express.js, Python, OpenCV, MongoDB.

## Farm Connect - Mobile Application for farmers and customers

Link

- A mobile application connecting farmers directly with customers, enabling farmers to list their products and customers to browse, bid on prices, and make purchases. The system sends reminders to farmers about products nearing their expiry date and offers weather monitoring features.
- Tools used: Flutter, Dart, Node.js, Express.js, MongoDB, Figma

## LuxuryX - e-Commerce Website and Web Application

Link

- An e-commerce platform with a comprehensive system to manage employees, suppliers, products, customers, orders, deliveries, promotions, and finances. It features both a website and web app to streamline operations and improve order, supplier, and financial management.
- Tools used: Node.js, Express.js, React.js, MongoDB

### MedPro - Healthcare Mobile Application

Link

- This Android application allows users to book appointments with doctors, schedule lab tests, and buy medicines directly from their mobile devices.
- Tools used: Kotlin, Android Studio, SQLite

# **Technologies**

Languages: HTML, CSS, JavaScript, TypeScript, Java, Kotlin, C#, Dart, Python

Frontend: React.js, Next.js, Redux, Material UI, Bootstrap, Tailwind CSS

Backend: Node.js, Express.js, Spring Boot, ASP.NET, FastAPI

Mobile: Android (Kotlin, Java), Flutter, Dart Databases: MySQL, MSSQL, MongoDB, SQLite

Tools, DevOps, Version Control & Design: Visual Studio, VS Code, IntelliJ, Android Studio, Docker, npm,

Postman, Linux, Azure, Heroku, Vercel, Render, Snyk, Git, GitHub, Jira, UML, Figma, Markdown

## **Honors & Awards**

Dean's List Award: Year 1 Semester 1 & 2, Year 2 Semester 1 & 2, Year 3 Semester 2 and Year 4 Semester 1

**Continuous Prize Winner:** Annual School Prize Giving (2008 – 2020)

## **Publications**

Enhancing E-Commerce Experience through Virtual Fitting Rooms: A Case Study of Real-Time Virtual Try-On for Eyewear Selection - Tuijin Jishu/Journal of Nov 9, 2023

**Propulsion Technology** 

https://propulsiontechjournal.com/index.php/journal/article/view/1385

## **Extracurricular Activities**

Development Team member of Microsoft Club of SLIIT

Senior Prefect (2019/2020), Junior Prefect (2007)

ICT, Chess, Science Union Member

#### References

## Ms. Karthiga Rajendran

Lecturer - Faculty of Computing | Department of Software Engineering, SLIIT | Malabe Campus karthiga.r@sliit.lk

#### Dr. Jeewanee Bamunusinghe

PhD (Monash), BSc (Hons) (Peradeniya)

Assistant Professor - Department of Information Technology, SLIIT | Malabe Campus

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