

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. Eager to contribute to a progressive organization as a software engineer while enhancing my skills and expertise.

Experience

Software Engineer Intern, WSO2 – Sri Lanka Aug 2023 – Jan 2024

- Learned and applied WSO2 technologies efficiently using existing programming knowledge.
- 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 Link

- Developed the summarization component of BioMentor, a personalized e-learning platform for A/L Biology, using a fine-tuned Flan-T5 model with voice output and multilingual note generation. Implemented Retrieval-Augmented Generation (RAG) for enhanced content retrieval and context-aware summaries. Designed and compared monolithic and microservice architectures, choosing monolithic 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 offering a comprehensive system to manage employees, suppliers, products, customers, orders, deliveries, promotions, and finances. With both a website and web application, it streamlines operations, from handling customer orders to managing supplier relationships and tracking finances.
- 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

Front End Development: React.js, Next.js, Redux, Material UI, Bootstrap, Tailwind CSS

Back End Development: Node.js, Express.js, Spring Boot, ASP.NET, FastAPI

Mobile Development: Android (Kotlin), Android (Java), Flutter, Dart

Databases: MySQL, MSSQL, MongoDB, SQLite

Version Control & Software Design: Git, GitHub, UML, Figma, Markdown

Development Tools & IDEs: Visual Studio, VS Code, Eclipse, IntelliJ, Android Studio, Docker, Docker Compose, npm, Postman, Linux

DevOps & Deployment: Azure, Heroku, Vercel, Render, Snyk

AI/ML and Data Tools: Google Colab, PyTorch, FAISS, Hugging Face, gTTS

Testing Frameworks: Jest, Mocha, Selenium

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

Publications

Enhancing E-Commerce Experience through Virtual Fitting Rooms: A Case Study of Real-Time Virtual Try-On for Eyewear Selection

Nov 9, 2023

Jishu/Journal of Propulsion Technology

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

References

Dr. Jeewanee Bamunusinghe

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

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