

# Dharane Segar

Colombo, SriLanka | dharanesegar08@gmail.com | +9477 889 36 15 | dharane-segar-portfolio  
linkedin.com/dharane-segar | github.com/DharaneSegar

## 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 – 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 - Final Year Research Project** 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

### **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, IntelliJ, Android Studio, Docker, 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

**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 Propulsion Technology

Nov 9, 2023

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

## **Extracurricular Activities**

---

Development Team member of Microsoft Club of SLIIT

Senior Prefect (2019/2020)

ICT, Chess, Science Union Member

Junior Prefect

## **References**

---

### **Dr. Jeewanee Bamunusinghe**

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

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

jeewanee.b@sliit.lk

### **Ms. Geethanjali Wimalaratne**

Senior Lecturer - Faculty of Computing | Computer Science Software Engineering, SLIIT | Malabe Campus

geethanjali.w@sliit.lk