SAHAN PERERA

 sahaaan | ☐ sahanpererain | ✉ sahaaan123@gmail.com | ☐ +94 78 684 3856

SUMMARY

Computer Engineering undergraduate with a strong focus on full-stack development, microservices architecture, DevOps practices, and cloud computing. Passionate about designing scalable, resilient systems, building RESTful APIs, and implementing CI/CD pipelines. Experienced in cloud-native development and eager to contribute to high-performance, technology-driven engineering teams.

EDUCATION

University of Sri Jayewardenepura   Feb 2023 – Present
B.Sc. Engineering (Hons.) in Computer Engineering — **CGPA: 3.46/4.00**

D.S.Senanayake College Colombo 07   Jan 2013 – Feb 2022
GCE Advanced Level – Physical Science Stream — **Z-Score: 1.9065**
GCE Ordinary Level – 9 A's

PROJECTS

Patient Management System – Microservices Architecture   **Ongoing**
https://github.com/sahaaan/patient-management-system

- Develop a microservices-based patient management system integrating patient, billing, analytics, and auth services.
- Implement REST and gRPC communication, Kafka event streaming, JWT-based auth, and Dockerized deployments.
- Configure API Gateway, request validation, error handling, and cloud deployment using AWS CloudFormation, ECS, RDS, and MSK.
- **Technologies:** Spring Boot, Java, PostgreSQL, gRPC, Kafka, Docker, AWS, Spring Security, JWT

Guardian Gear – Smart Helmet Safety System   May 2025 – Oct 2025
https://github.com/Guardian-Gear

- Developed a smart helmet detecting accidents in real-time and enforcing helmet usage.
- Enforces helmet usage to prevent vehicle operation without a helmet.
- Sends SMS alerts with GPS location to emergency contacts upon accident detection.
- Built a companion mobile app for monitoring and configuration with a cloud-connected backend.
- **Technologies:** ESP32, Wi-Fi Provisioning, ESP-NOW, React Native (Expo), Firebase

SmartHRGo – Cloud-Based HR Management Mobile Application   Oct 2025 – Nov 2025
https://linkedin.com/in/sahanpererain/SmartHRGo

- Built a full-stack HR management mobile application tailored for small companies and startups using a serverless cloud architecture.
- Implemented role-based access, employee onboarding, timesheets, leave management, and automated salary calculation.
- **Technologies:** React Native (Expo), AWS Lambda (Node.js 22.x), Amazon Cognito, API Gateway (5 REST APIs), DynamoDB

Logistics Management System – Disaster Management Center   **Dec 2025 – Dec 2025**

https://mis.dmc.gov.lk

- Built a full-stack logistics platform for the Disaster Management Center to track shipments and record foreign aid during floods.
- Implemented role-based access control, shipment status updates, and resource flow optimization features.
- **Technologies:** Next.js, PostgreSQL, JWT Authentication, Vercel

PetPulse – Digital Pet Health and Companion Management App   **Dec 2024 – Feb 2025**

https://linkedin.com/in/sahanpererain/PetPulse

- Developed a digital pet health companion app connecting pet owners and veterinarians.
- Implemented health record management, appointment and vaccination reminders, real-time pet location tracking, community features, companion finder, and an AI-powered chatbot for guidance.
- **Technologies:** Flutter (Dart), Firebase, Google Maps API, Gemini API

Supermarket Chatbot – Intelligent Customer Assistance System   **Sep 2025 – Sep 2025**

https://github.com/ChatBot-using-NLP

- Implemented natural language query processing using spaCy NLP to locate products and retrieve shelf locations from a MongoDB database.
- Developed a React frontend with a .NET backend integrating the NLP service and database.
- **Technologies:** React, .NET, FastAPI, MongoDB, spaCy NLP

WORK EXPERIENCE

Management Trainee, ALFT Packaging Co. (Pvt) Ltd   **Jul 2022 - Feb 2023**

Worked as a Management Trainee with hands-on exposure across departments, including Microsoft Dynamics 365 Business Central.

SKILLS

Programming Languages	C++, C#, Java, JavaScript, TypeScript, Python, Dart
Frameworks and Tools	React, Spring Boot, .NET, Flutter, Next.js, React Native, FastAPI, Django
Machine Learning / Data Science	Pandas, NumPy, Matplotlib, Seaborn, scikit-learn, XGBoost
DevOps and Cloud	Docker, Kubernetes, Jenkins, Linux, AWS, CI/CD, Firebase, GitHub
Databases	MySQL, PostgreSQL, MongoDB

CERTIFICATIONS

The Ultimate DevOps Bootcamp – Instructor: Mumshad Mannambeth, KodeKloud Training   **2025**
Spring Boot for Beginners – Amigoscode   **2025**

REFERENCES

Dr. Udaya Wijenayake
Head of the Department
Department of Computer Engineering
University of Sri Jayewardenepura
udayaw@sjp.ac.lk
+94 76 465 5928

Dr. Randima Dinalankara
Senior Lecturer
Department of Computer Engineering
University of Sri Jayewardenepura
randima@sjp.ac.lk
+94 11 304 1601