Shanuka Jayarathna

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○ https://github.com/Shanukathushara

○ No:10/10, Thalagolla, Makehelwala, Via Rambukkana

Introduction

I am a passionate and driven Computer Science undergraduate with a strong interest in software development, web technologies, and innovative IoT solutions. With hands-on experience in both frontend and backend development, I have contributed to several academic and personal projects, ranging from real-time dashboards and tracking systems to intelligent IoT applications. I am always eager to learn new technologies, solve real-world problems, and collaborate with others to build meaningful digital solutions. My goal is to grow into a versatile developer who not only writes code but also creates impactful user experiences.

Education

University of Plymouth BSc. (Hons.) Computer Science
(Affiliated with Plymouth University UK)

2023 to present

Dharmaraja College, Kandy.
Studied advanced topics in Physics and Mathematics, gaining a thorough understanding of scientific principles and their applications.

2014 to 2022

- G.C.E. Ordinary Level and G.C.E. Advanced Level

Skills

Technical Skills
- **Languages:** C, C++, Java, SQL, JavaScript, Python, C#, Arduino
- **Web Development:** Frontend (HTML/CSS/JS), Backend (Node.js, PHP), REST APIs
- **Database Management:** MySQL, SQL Server, SQLite
- **Frameworks & Tools:** Flask (Python), XAMPP, Tinkercad, Figma
- **Embedded Systems & IoT:** Arduino, ESP32, Ultrasonic Sensors, Proximity Sensors
- **Data Visualization:** Excel Charts, Real-Time Dashboards (Python + Flask)
- **Version Control:** Git (intermediate)
- **Authentication & Security:** JWT Authentication (basic understanding)

Soft Skills
- Team Collaboration
- Problem-Solving
- Project Planning & Execution
- Creativity in UI/UX Design
- Quick Learning & Adaptability

Projects

1. **Stock Level Notifier**
   - **Role:** Team Leader & IoT Developer
   - **Technologies:** Arduino, ESP32, Ultrasonic Sensors, Python, Flask, SQLite, HTML/CSS, JavaScript
   - **Duration:** October 2024 – February 2025
   - **Description:** Developed a smart inventory monitoring system that uses ultrasonic sensors and ESP32 to detect low stock levels on store racks. The system displays real-time data on a local web dashboard and alerts store staff for timely refilling.
   - **GitHub Link:** https://github.com/Shanukathushara/Rack-Stock-Level-Notifier.git

2. **QuickExpress – Bus Tracking Application**
   - **Role:** UI Designer & Presentation Lead
   - **Technologies:** Figma, Flutter (Design Phase)
   - **Duration:** March 2025
   - **Description:** Designed an intuitive mobile application for tracking long-distance highway buses in real time. The system helps passengers locate buses and view estimated arrival times.
   - **GitHub Link:** https://github.com/Shanukathushara/PUSL2023_QuickExpress.git

3. **Real-time Air Quality Monitoring Dashboard**
   - **Role:** Data Visualizer & Backend Developer
   - **Technologies:** Python, Flask, SQLite, Chart.js, HTML/CSS
   - **Duration:** March 2025 – (Ongoing)
   - **Description:** Developed a simulated dashboard to monitor Colombo's air quality in real-time with role-based access and historical data analysis.

4. **Personal Finance Tracker**
   - **Role:** Individual project
   - **Technologies:** Python, CSV
   - **Duration:** March 2025 – April 2025
   - **Description:** Designed and implemented a personal finance tracking web application to help users manage their income and expenses effectively. The platform allows users to categorize transactions, view summaries, and maintain financial discipline with visual insights.
   - **GitHub Link:** https://github.com/Shanukathushara/Personal-Finance-Tracker.git

5. **Harbor Management System**
   - **Role:** UI designer and Backend Developer
   - **Technologies:** C#, ASP.NET Core / ASP.NET MVC, SQL Server
   - **Duration:**
   - **Description:** The Harbor Management System is a smart web application designed to digitalize port operations. It helps port authorities manage and monitor harbor activities efficiently.
   - **GitHub Link:** https://github.com/Shanukathushara/Harbor-Tracking-System-C-Sharp.git

Certification

- **Python Programming using Visual Studio Code by Microsoft Student Learn Ambassador**

  Link: https://www.linkedin.com/posts/shanuka-jayarathna-5b11281a1_microsoftlearn-studentambassador-python-activity-7293891028946690048-UoCn?utm_source=share&utm_medium=member_desktop&rcm=ACoAAC8ut1UBlUQqAB-h0VjBJ8tBYav_q8FUUYM

- **Road to Legacy Event Participation**

  Link: https://www.linkedin.com/posts/shanuka-jayarathna-5b11281a1_roadtolegacy-ieee-professionaldevelopment-activity-7320733807899291649-zu3q?utm_source=share&utm_medium=member_desktop&rcm=ACoAAC8ut1UBlUQqAB-h0VjBJ8tBYav_q8FUUYM

- **HackTalk Event by Hackathon**

  Link: https://www.linkedin.com/posts/shanuka-jayarathna-5b11281a1_hacktalk-nsbm-hackathonhub-activity-7320737888587972609-yypz?utm_source=share&utm_medium=member_desktop&rcm=ACoAAC8ut1UBlUQqAB-h0VjBJ8tBYav_q8FUUYM

Extra-Curricular Activities

- **AIESEC Member**
  (February 2025 – Present)

  - Engaged in leadership roles to enhance organizational effectiveness and team collaboration within AIESEC.

- **CompuVate Club Member**
  (January 2025-Present)

  - Participated in coding competitions and hackathons, collaborating with team members to solve real-world problems.