# ESARA SITHUMAL

Faculty of Engineering, University of Peradeniya, Peradeniya.

📞 +94 703 761 949 ✉ esara.sithumal97@gmail.com 🔗 linkedin.com/in/esara-sithumal ⚙ github.com/EsaraSithumal

## PROFILE

I am a hardworking and ambitious third-year computer engineering undergraduate constantly striving to improve my knowledge, skills, and abilities to be resourceful and innovative. I am seeking an internship position for which I am qualified that provides challenges and opportunities for additional training to enhance my capabilities.

## EDUCATION

**University of Peradeniya**   **Expected Graduation Day: Dec. 2023**
*Bachelor of Science in Computer Engineering*   *Current GPA: 3.95/4.00*

**Dharmaraja College, Kandy**   **Nov. 2014 – Aug. 2017**
*G.C.E. Advanced Level*   *Combined Maths: A | Chemistry: A | Physics: A*

## FIELDS OF INTEREST

- DevOps
- Cloud Engineering
- Frontend/Backend Development
- Mobile App Development

## RELEVANT COURSEWORK

- Data Structures
- Software Engineering
- Networking
- Algorithm Analysis
- Web Application Design
- Machine Learning
- Computer Architecture
- Operating Systems

## PROJECTS

**Wild Life Tracker** | *JavaScript, Selenium, AWS Cloud Services, Fusion360* | *[Group Project]*   **July 2021 - present**
GitHub Repo | Project Page

Developing a Cyber-Physical system for wildlife researchers to conduct their research remotely.

**Contribution:**
- Designed and implemented the Home and login pages of the web application.
- Implemented the email notification service and several backend routes.
- Used selenium to automate the web application testing.
- Deployed the web application in AWS cloud by creating a Linux virtual machine in an AWS EC2 instance.
- Designed the CAD model for the device using Fusion360.

**Flood Forecasting System** | *Python, JavaScript, Azure DevOps, Azure Cloud Services* | *[Group Project]*   **March 2022**
GitHub Repo | Project Page

Developed a web application to predict flood possibilities in the Mee-Oya river basin and warn the general public. Trained machine learning models to predict the water flow rate in the river using real-time rainfall data. Followed agile scrum development methodology throughout the software development process.

**Contribution:**
- Manage the project backlog and sprint backlogs. Used Azure DevOps for project management.
- Implemented the backend of the web app with fastAPI.
- Created a CI/CD pipeline for continuous deployment of the frontend and backend of the web application.

**Smart Building Automation System** | *MQTT, NodeRed* | *[Group Project]*   **Oct. 2022**
GitHub Repo

Developed an industrial building control automation system. The system maintains the environment inside a building at the desired level by observing the current state using sensors. Features are provided for administrators to monitor the system and override control decisions through SCADA and Web interfaces.

**Contribution:**
- Implemented a SCADA interface to monitor and control the heating, ventilation, and air conditioning inside the building.

**Service Advertising and Booking App** | *Flutter, JavaScript* | *[Group Project]*                    **Dec. 2021 - present**
GitHub Repo
    Implement a mobile application for local service providers in Sri Lanka to advertise their services. Customers can communicate with service providers and book their services via the mobile app.

    **Contribution:**
- Designed the UI's of the mobile app using Adobe XD.
- Developing the mobile app using Flutter.

**Compiler for COOL Language** | *C++,Flex,Bison* | *[Group Project]*                    **Feb. 2022**
GitHub Repo
    Created a compiler for Cool programming language which generates the MIPS assembly code.

    **Contribution:**
- Implement all 4 compiler stages, lexical analyzer, parser, semantic analyzer, and code generator.

## ACHIEVEMENTS

**ACES AI Hackfest 2022**                    **May 2022**
*By ACES, University of Peradeniya*
- Participated as a group of 6 members. Competed under the Disaster Management Category.

**CodeRally 3.0**                    **Jan. 2022**
*By IEEE CS Student Branch of IIT*
- Participated as an individual. Ended up within the first 60 places out of 150+ participants.

## TECHNICAL SKILLS

    **Languages**: Python, Java, C, JavaScript, Dart, Verilog HDL
    **Web Development**: HTML/CSS, NodeJS, ReactJS, NextJS, ExpressJS
    **Mobile App Development**: Flutter
    **DBMS**: SQL, MongoDB
    **Developer Tools**: VS Code, Eclipse, AWS Cloud Platform, Azure DevOps, Azure cloud platform, Android Studio
    **Technologies/Frameworks**: Linux, GitHub, Selenium

## EXPERIENCE

**Casual Instructor**                    **June 2021**
*University of Peradeniya*                    *Faculty of Engineering*
- Conduct lab classes for computer programming course which is offered in the general program for 1st-year undergraduates.
- Assisted 2nd-year computer engineering undergraduate students in the lab classes under the course on communication networks.

## LEADERSHIP / EXTRACURRICULAR

**Hackers Club**                    **2019-Present**
*Faculty of Engineering, University of Peradeniya*
- Committee member for the term 2021/2022
- Active member since 2019

**Dancing Team Member**                    **2009-2013**
*Jinaraja Boys' College, Gampola*
- Presidential Awards — 2012, 2013
- Provincial inter-school dancing competition(Central Province) Winner — 2012
- Provincial inter-school dancing competition(Central Province) 1st Runner-Up — 2011, 2013

## REFERENCE

**Prof. Roshan G. Ragel**                    ✉ **roshanr@eng.pdn.ac.lk**
*Head of the Department*          *Department of Computer Engineering, Faculty of Engineering, University of Peradeniya.*

**Dr. Asitha Bandaranayake**                    ✉ **asithab@eng.pdn.ac.lk**
*Senior Lecturer*          *Department of Computer Engineering, Faculty of Engineering, University of Peradeniya.*